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An analysis of the ideas of economics /



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ECONOMICS

PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
LONDON

AN
ANALYSIS OF THE IDEAS
OF
ECONOMICS

BY
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TO THE GOVERNMENT OF BENGAL, AND OFFICIATING
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INDIA IN THE DEPARTMENT OF
FINANCE AND COMMERCE

LONDON
LONGMANS, GREEN, AND CO.
AND NEW YORK : 15 EAST 16th STREET

1893



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PREFACE



PERHAPS the simplest way of explaining the object of this book is to state briefly how it came to be written at all. Some years ago I had to study at the same time the sister sciences of Political Economy and Jurisprudence. The chaotic condition of the former has long been admitted by its exponents, and, after vainly seeking for light in the works of both dissenting and orthodox writers, for my own satisfaction I commenced the present analysis. I had been deeply impressed by the marked contrast between the lucid expositions of the analytical Jurists and those of the Economists, and it seemed to me that the methods evolved in the older department of Social Science might be applied with advantage in the newer one. Taking Austin as my model, therefore, I endeavoured, in imitation of him, to

scrutinise each of the terms separately, and to examine their relations to each other. The work has been continued at intervals for the last ten years, and I now submit the results of the analysis to the public.

The characteristics of Austin's method appear to be, firstly, his thoroughness, no term being suffered to pass unscrutinised lest ambiguity should lurk in it; and secondly, the care he takes not to lose himself in details, but to keep prominently in view the interdependence of the ideas, the manner in which they mutually imply each other. The two, however, are closely connected, for, when conceptions have each been split up into elementary ideas, their relationship is at once apparent from a comparison of the latter.

Although, however, the main outline and scheme of the book is borrowed from Austin, the actual work of analysis and definition is effected by the inductive method explained in Dr. Bain's 'Logic,' a full account of which is given in the second chapter. When defining a word Austin assumes that there is a coherent logical conception answering to it; he searches for the simple component ideas which go to make up this conception, and by enumerating these he frames the definition. In reality, to some extent at any rate,

he manufactures the conception which he professes to discover, and, to the reader who is not clear-sighted enough to perceive the true nature of the process, his demonstration appears all the more convincing. His procedure, however, is so far sound, that he adheres closely to the received meaning of the word, and, practically, the result is the same as if he had followed the quicker and more effective inductive method alluded to.

At the same time it is not pretended that there is anything new in the present attempt beyond its systematic execution by a sound method. All Economists have concerned themselves, at least to some extent, with the work of analysis and definition, and in particular, in this country, De Quincey, Professor Jevons, and Mr. Macleod have done so; but, chiefly owing to the want of a recognised procedure, there is no agreement in the results arrived at. The most difficult of all the conceptions, value, was attacked by De Quincey, who, however, based his analysis on cost of production (difficulty of attainment) instead of on supply and demand (quantity and utility). It was not until after a long interval that its constituent elements were correctly determined in the masterly treatise of Professor Jevons. Yet,

strange to say, his object was not to effect an analysis of the idea, but to establish a theory ; and probably for this reason, although perhaps also because he was blinded by Mr. Macleod's conception of value as a ratio, he failed to perceive that he had proved the identity of the three popular meanings of the word, namely, esteem, final utility or value in use, and purchasing power or value in exchange. The connection between the two latter has not, indeed, been wholly overlooked since then, for it is noticed both by Professor Marshall and Professor Sidgwick ; but no one appears to have attached to it the weight that it deserves, for it enables us to realise what Mr. Smart calls ' the dream of Economists,' and ' to explain all kinds of value from a single universal conception.'

The discussions of Professor Jevons on capital are of less assistance in the work of analysis, for here also he is investigating a theory, and not endeavouring to ascertain the meaning of the word, or to arrive at the best definition ; and he has simply followed the conception evolved out of the barter theory by the commentators on Adam Smith, a conception which is at variance with popular usage, and is, I believe, entirely misleading.

There is, so far as I know, only one Economist,

Mr. Macleod, who has systematically analysed the meaning of the different terms. His method is, however, I venture to think, unsound, and has betrayed him in almost every case into an utter disregard of the received and established meaning of the word. For this reason alone I think his views are not generally understood, and are never likely to be widely accepted. Apart from this, when the science comes at length to be established on a firm basis it will, I believe, be found that he has done more for it than any Economist since the time of Adam Smith. He is the first, at any rate in this country, to free himself entirely from the errors of the barter school, and his conceptions, though requiring rearrangement and re-naming, throw a flood of light upon the whole subject. I am the more anxious to acknowledge fully my obligations to him because, for the reasons given above, in the text I usually quote only to differ from him ; but, as my analysis has proceeded, I have found it assume more and more the character of an attempt to reconcile his conceptions with those of Professor Jevons and with popular usage.

The works, in addition to those of the writers named above, to which I am chiefly indebted are Mr. Giffen's 'Financial Essays,' Mr. Bagehot's

'Lombard Street,' Professor Walker's 'Money, Trade, and Industry,' Mr. (now Sir David) Barbour's 'Theory of Bi-metallism,' and the report of and the evidence given before the Royal Commission on Gold and Silver.

My acknowledgments and thanks are due to Messrs. Macmillan & Co. for their courtesy, and for the permission which they readily granted to publish *in extenso* Professor Jevons's clear and felicitous exposition of the law laid down by him as to the effect of continued consumption in reducing the demand for a commodity.

L. P. SHIRRES.

ABERDEEN: *August* 1892.

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AN ANALYSIS OF THE IDEAS OF ECONOMICS



CHAPTER I

THE PROVINCE OF ECONOMICS

POLITICAL ECONOMY, or, as it is now usually called, Economics, is a branch of political or social science, and we may, therefore, determine its province, positively, by indicating its subject-matter, and negatively, by distinguishing it from each of the subdivisions of the main science with which it comes in contact.

The remaining departments of Political Science are, according to Dr. Bain,¹ Jurisprudence, International Law, Statistics, the Form of Government, and Legislation on all topics not otherwise embraced; and to these we may add Sociology, the

¹ *Logic*, vol. ii. p. 319.

Science of the Evolution of Social Relations as expounded by Herbert Spencer. Jurisprudence may be regarded either as a practical science, having for its end the improvement of positive law, or as a theoretical science, setting forth the principles on which a system of law ought to be framed. It is obviously in no danger of being confounded with Economics, but a careful comparison of the two will throw much light both on the scope of the latter and on the method of inquiry which should be followed. The statistician deals with detached concrete problems scattered throughout the whole field of political science, but regards them only in the light of one particular kind of evidence. His assistance is of great service to the economist, who would otherwise have to investigate some of the same facts, not in isolation, but as parts of an organised system. The latter has, however, in addition, to ascertain the principles on which such systems ought to be based. The Form of Government treats of the structure, the functions, and the province or business of Governments. Of these the last includes the raising of money and its expenditure in administering some parts of the mechanism of industry—roads, bridges, public buildings, means of communication, the post-office, &c., and the principles on which these should

be administered, and the limits to be set to the action of Government in this direction must in some cases be ascertained by the economist. Sociology examines the evolution of the institutions of society, and the coincident changes in the units composing it. As, however, the system of industry is one of the institutions, its principles, in so far as these tend not merely to increase the wealth, but to change the organisation of the society, come under the consideration of the sociologist, and it will be found that this constantly brings the two sciences into contact at one most important point.

The only subjects left are International Law, which discusses the procedure adopted by Governments in dealing with each other, and legislation on topics not otherwise embraced; and, although the effect of special laws on industry may require examination, these subjects are, on the whole, distinct, and call for no remark.

We shall now proceed to demarcate Economics more clearly from Sociology and Statistics; we shall then compare it with Jurisprudence, and elucidate its nature, showing that it involves two distinct kinds of inquiry. This will lead to a discussion of the generalisations on which its theoretical treatment is based; thereafter, its

relation to the Province of Government will be explained more fully ; and the chapter will conclude with a brief examination of the mathematical nature of the science.

Sociology regards society from a biological point of view, and seeks to explain its evolution and growth by applying to it the principles or generalisations obtained from a review of the entire field of life. Of these, the most important is the hypothesis of descent, which sees in the characters of living things the final result of successive changes, each bringing the organism into greater harmony with its environment. Society is regarded as a separate organism, and an attempt is made to show that the growth of its institutions from primitive beginnings, the action of these on the individuals composing it, and the subsequent actions and reactions between the two; are all in accordance with the ascertained laws which govern the evolution of organisms generally. Man is declared to be capable of indefinite change ; but, on the other hand, it is emphatically stated that such change must be exceedingly slow.

Now, the question which, more than any other, has perplexed the economist, and his warnings on which have earned for his subject the title of

the 'Dismal Science,' is that of the increase of population. Starting from the fact that land already cultivated will yield an increased crop only from a more than proportionate outlay of labour, and that there is a physical limit to the amount which even the utmost labour can wring from it, he pointed out that, if the population went on increasing, a time must come when the food supply would prove insufficient. In that case, unless greater prudence were shown in the matter of marriage, he predicted that the population would be kept down by disease and death. Following out the same line of thought, he attributed much of the existing misery to imprudent marriages, and argued that no benefit to a class could be more than temporary if they simply took advantage of it to increase and multiply, for in that case they would soon be in the same condition as before; and that the only means of permanent improvement was, therefore, to induce them to raise their standard of living—that is, to put off marriage until they could see their way to bringing up a family in increased comfort.

The problem, therefore, is, how to modify the character and habits of certain classes so as to level them up; and this, together with all others of a similar nature, such as that of modifying the

character of a peasantry by making them owners of the soil, belongs properly to Sociology. The two sciences, however, are constantly coming into contact at this point. It is a simple deduction from two of the fundamental principles of Economics that the wealth of a community will yield the greatest happiness when it is equally divided ; and although we may not contemplate any arbitrary division, we have frequently to consider a *tendency* towards equality or inequality. Is it, for example, an argument in favour of reducing one tax rather than another, that the reduction in the former case will benefit the labouring classes ; or ought we to confine our efforts to giving them greater opportunities of rising, and to conferring benefits, such as free education, which will not help them to marry ?

This celebrated theory of Malthus has attracted less attention of late years, because, as a matter of fact, we have not been compelled to raise increased crops from soil already cultivated, but have found new soil in America and elsewhere. That era, however, is now rapidly drawing to a close.¹ At the same time no one who is sufficiently acquainted with the circumstances of this

¹ See on this subject Mr. Giffen's *Financial Essays*, 2nd series, p. 301 *et seq.*, and Mr. S. Laing's *Problems of the Future*.

country and of India to institute a comparison between the two, can fail to feel inspired by it with feelings of hope for the one, and of apprehension for the other. Here, in England, people do look ahead ; large numbers remain unmarried, and those who marry, do so comparatively late. The population of France is nearly stationary, and it may be doubted whether the upper and middle classes in this country would increase were it not for immigration from the classes below them.¹ From these facts it may be inferred that the white races will, in the future, solve the problem by prudential restraint ; and in that case, in spite of the misery which must intervene, it may be doubted whether the change will be wholly evil. In the case of India, however, the outlook is black indeed ; for, while the population is increasing with such rapidity that its density will soon exceed the estimated density in China, the question of marriage reform seems to excite little real interest. By the suppression of warfare, infanticide, and periodic famine, we have changed the environment ; but we have not succeeded in bringing about any corresponding change in the habits and customs of the people.

Even, however, if we put aside all questions

¹ See Mr. Laing's *Problems of the Future*, p. 408.

which involve a consideration of the effects of industrial institutions in modifying the habits and character of classes of the community, such as the theory of Malthus, peasant proprietors, socialism, the distribution of private property, the poor laws, &c., that enough still remains to constitute a separate science, the mere enumeration of the chief terms of Economics—wealth, value, exchange, credit, money, capital, and commodity—will suffice to show. To analyse and define these, to discover the actual working of the industrial system in different countries, and to ascertain the principles which ought to underlie it, and which furnish the criteria of its goodness or badness, is the task of the economist.

Statistics is a practical science, and is therefore defined by its end, which is not merely to compile numerical data, but to ascertain what evidence of this kind exists in reply to a question asked—for figures good for one purpose may not be so for another—and to this the statistician confines himself. The points which distinguish it from Economics are that it furnishes information also to other sciences, that it deals only with isolated facts, that it uses only one kind of evidence, and that it leaves the entire department of Theoretical Economics untouched.

To ignorance of the fact that it is a separate science may be attributed two opposite classes of error. On the one hand, amateurs are peculiarly liable to exhibit their incapacity in it, as, at first sight, it appears to require nothing more than an elementary knowledge of arithmetic. Nothing, for example, seems easier than to tell the state of the public health from the number of admissions into hospitals, for the fewer the admissions the better the health ; and yet the conclusion is probably unsound, for if the beds are full, the fact that fewer patients are admitted means that their ailments are more serious and detain them longer in hospital, and that consequently trivial cases have to be turned away. On the other hand, there is the equally irrational attitude of those who hold that figures will prove anything. So far, indeed, is this from being the case, that their study supplies the best corrective for those ill-digested generalisations which so readily gain credence, for an example of which the reader is referred to Mr. Giffen's statistical examination of the statement that the rich are growing richer and the poor poorer. It is the triumph of the statistician to draw sound conclusions from figures known to be incorrect, *e.g.*, from returns for successive years compiled in the same way.

The scope of Economics, and the methods of inquiry which should be adopted, will be rendered singularly clear if we compare it with Jurisprudence. The jurist may obtain from codes his knowledge of existing systems of law, and from statistics and otherwise he may learn how those laws work, but his own sphere of labour is different. He deals with the form of law apart from the substance, or, in other words, with the principles which ought to underlie a system of law, and in accordance with which it ought to be framed. The economist, however, is less advanced, for he has first to ascertain the existing systems before he can examine the principles which underlie them, or ought to underlie them ; and if he is ignorant of these, he is in the position of a writer on Jurisprudence who is acquainted with no actual existing body of law. When he has accomplished all this, he has still before him the science of Theoretical Economics, the investigation of which is a task exactly similar to that of the jurist.

Thus, after the ideas of the science have been analysed and defined, the remainder of the subject consists of two distinct portions, although, for convenience of exposition, they may be treated together—namely, first, a statement of the facts

in one or more societies, or, when the facts are insufficiently ascertained, hypothetical statements of them, such as are found in other sciences ; and secondly, a statement of the principles of the science. The latter will usually take the form, to some extent, at any rate, of a criticism of the foregoing facts.

Now, if the economist could induce the historian or the statistician, or anyone else, to take the labour of discovering the facts off his hands, his science would become purely deductive ; but, as long as he is compelled to undertake this task himself, he must make use of the means common to all science—observation and induction. If, as too often happens, the facts cannot be exactly ascertained, he may follow the method employed in other sciences, and put forward an hypothesis to account for them ; but the character of such an hypothesis should never be lost sight of. It is not one of the deductive principles of the science, nor a truth deductively established, but a guess as to what the facts are which is liable to be disproved by the production of evidence inconsistent with it.

It is sometimes thought that the mechanism of industry can be not merely explained, but discovered by means of the barter theory, and the

assumption that men will be guided by self-interest. But even if this were so, it would not dispense with the necessity of observing the actual facts. The finest instance of such deductive reasoning is the discovery of the planet Neptune ; but the triumph of Professor Adams and M. Le Verrier was not complete until the planet itself was seen through the telescope at Berlin.

The comparison between Economics and Jurisprudence may with advantage be carried still farther. The latter deals with law, and law may be described as the machinery of society for protecting one man from his fellow-men.¹ Its organisation comprehends civil and criminal laws, and laws of procedure and evidence ; gaols, police-stations, and court-houses ; gaolers, policemen, magistrates, judges, barristers, and lawyers. All the information regarding these is readily available to the jurist. Now, if we turn to Bentham's 'Theory of Legislation,' we find that he commences by defining the object of the legislator as the public good, or, as it is usually expressed, the greatest good of the greatest number. 'To know the true good of the community,' he says, 'is what constitutes the science of legislation ; the art consists in

¹ This somewhat caustic definition was given incidentally by Dr. Bain in one of his class lectures.

finding the means to realise that good.' To enable the true good to be ascertained, he states a number of generalisations or propositions relating to pleasures and pains, among which, it may be observed, are twelve relating to wealth. From these, and an examination of existing laws, he then deduces detailed principles on which the laws should be based. Thus, in the case of the Penal Code, he classifies offences and punishments, and the means of preventing offences, and of remedying the evils arising from them; and the whole is accompanied by a commentary on existing laws, similar to the criticisms on economic facts to be found in expositions of that science.

Economics, on the other hand, may be said to examine the machinery of society for directing its labour and distributing the produce thereof. If we view this machinery as a whole, we find that it includes those engaged in production, that is, in agriculture, in mines and quarries, in fishing, and in manufacture; in distribution, that is, in export and import, in wholesale and retail trade, and in mere transport by roads, railways, canals, and shipping. It includes their capital, the land, mines, quarries, and fishing fleets, the factories with their coal, raw material, and machinery; the railways,

docks, harbours, and canals, and the ships and other means of transport; and it includes also money and its special mechanism of banks, banking, and exchange. To complete the picture we must see in the background the remaining wealth of the community, consisting chiefly of land, buildings, and their contents, and those engaged in other occupations or in no occupation at all. This gives what may be described as an idea of the machinery at rest.

To form a conception of it in motion, we must remember that the capital is constantly being added to, and that a portion of the labour is engaged solely in this work;¹ that savings are constantly being withdrawn from the banks to pay for this, while other savings are constantly dropping in; that the deposits withdrawn are nearly balanced by the new deposits received, so that the banker has a large permanent balance, which he lends out, but only for short periods, so that it is not available for permanent investment as the savings are; that he makes these loans to manufacturers, wholesale dealers, exporters, and importers, chiefly by discounting bills; that the money paid away by the manufacturers as wages

¹ This very instructive way of looking at the question is put forward by Mr. Giffen. See *Financial Essays*, 1st series, p. 194.

finds its way into the tills of shopkeepers, and so back with the other money in the tills to the banks ; and, if we would realise the activity displayed, we must see, for example, the cotton exporter to Bombay settling the price with the manufacturers, ascertaining the freight and the rate of exchange, selling the cotton by telegram, and drawing a bill on his customer and getting it discounted, all, perhaps, in the course of one day.

This, moreover, is only the aspect it would present at one instant of time. To picture to ourselves the manner in which, from month to month and year to year, the wheels go now fast now slow, we must understand how, by means of the Clearing House, the banks are all combined into one, with one reserve at the Bank of England ; how, when the reserve diminishes or increases, the rate of discount rises or falls, and, like the governor of a steam engine, regulates the velocity of the machinery ; how, owing to variations in the world's harvest and other causes, the progress from year to year is not uniform, but by alternations of depression and exaltation ; and, finally, how the upward limit to which prices can rise in these periods of exaltation is determined by the quantity of gold available as money, while, owing to the increase of population and the still

faster increase of wealth, more gold is required every year, so that to keep prices from falling, there must be constant additions to the existing stock of gold, or increased economy of it by improved communications or otherwise, the final result being that all the gold is utilised, and that prices are on the average as high as the quantity of gold permits.

Now, if all the facts relating to this difficult and complex mechanism have been discovered, the economist is at last in the position from which the jurist starts. The question then arises : Has the economist any general principle, and has he any, and if so what, generalisations relating to pleasures and pains ? As regards the first point no one will dispute that the general good of the community must be the aim of the economist and the foundation of his reasonings, and that the Principle of Utility, the greatest good of the greatest number, must be the practical rule by which the general good is to be judged. As regards the second, it is to be observed that both sciences deal with pleasures and pains, but that the one confines itself to those relating to wealth and labour, while the other takes account in addition to these of many others. Now, as the inductive generalisations relating to the pleasures and pains due to wealth and labour

must be the same whichever science deals with them, it follows that the fundamental propositions at the base of Economics must be some of those on which the science of Jurisprudence rests.

Bentham sets out with the principle that in dealing with large aggregates of persons, differences arising from the varying characters and circumstances of individuals may be neglected, and then states twelve propositions relating to wealth. These, however, need not be examined in detail, for the subject is treated in a much more scientific manner by Professor Jevons, who gives the law relating to wealth as follows: 'The degree of utility varies with the quantity of commodity, and ultimately decreases as that quantity increases;' which means, that if a person gets successive equal portions of any kind of wealth, after a time each new portion will give him less pleasure than the preceding. From this law, taken with the principle that differences of individuals may be neglected, eleven of Bentham's propositions can be immediately deduced; and the remaining one, that if a person loses part of his wealth the loss of happiness will be in proportion to the loss of wealth, appears to be unsound.

Professor Jevons lays down a similar but opposite rule regarding labour, and these two

are the chief fundamental propositions of Economics.

The preliminary proposition of Bentham, that, in dealing with masses of men we may neglect differences of individuals, may be stated as a deduction from the Theory of Probabilities ; for, as applied by him, it amounts to this, that if we promote equality in the distribution of wealth, there may in some cases be a decrease of happiness ; but, on the average, there will be an increase. We need not, however, examine it in detail, for the consideration of the effect of a tendency towards equality or inequality raises, as already noted, the difficult question of increase of population, and belongs rather to Sociology than to Economics.

Jurisprudence deals with the effect of future pleasures and pains in influencing present conduct, and Bentham lays down a general principle on the subject which applies also to Economics. It is, that if we consider a future pleasure or pain we must have regard, not only to its amount, but to its certainty and its proximity. From this we may deduce a complete theory as to the influences which induce men to save, and as to the effect of the rate of interest on the accumulation of wealth. Men do not save for the sake of interest alone, as is conclusively shown by the fact, that the most

primitive form of saving—hoarding, does not look to interest at all. On the other hand, the rate of interest does exert an influence by increasing both the inducement to save (although it sometimes acts in the opposite direction) and the amount from which savings may be made.

One more remark may be made before we quit this portion of the subject. Economics is a *quantitative* science, that is, it deals with pleasures and pains capable of quantitative measurement ; whereas Jurisprudence is not. This, however, is not because of any essential difference in the nature of the sciences, but because, as a matter of fact, in the course of everyday life men are compelled to measure the pleasures and pains due to wealth and labour. If a man gives six shillings a pound for one commodity, and two shillings a pound for another, it will be seen, when we examine the law stated above as to the diminishing happiness obtained from successive portions of wealth, that the last portion of the former yields him three times as much pleasure as the corresponding portion of the latter. We cannot tell the absolute pleasure he gets from either, but it is sufficient for our purpose to know that, be he rich or be he poor, he obtains three times as much from the one as from the other.

The discussion of the broad principles which should limit the interference of Government belongs rather to Sociology than to Economics, and its full treatment raises questions which reach far beyond the limits of the latter science ; and we shall, therefore, merely indicate, as briefly as possible, some important points in which the general question touches the peculiar province of the economist.

In his wonderfully interesting work on Ancient Law, Sir H. S. Maine reconstructs, chiefly from the traces it has left on Roman Law, the ancient Aryan community, and shows us its most important characteristics. He takes us back to a time when the conception of the family was much more extended than it is now, and when its head exercised despotic powers and had many persons—children, relatives, and slaves—under him. The unit of society was, therefore, the family, and the great majority of the people were, from their state of dependence or slavery, by law and custom incapable of making a contract, and in a condition which may be described as determined by their status. We do not go back to a time when contract is unknown, but it is obviously in its infancy ; and the process which then commences, and is still continuing, is the

eating away of the bonds of status by the enlargement and the encroachment of the sphere of contract, and the substitution of the individual for the family as the unit of society. Thus the slave becomes the free labourer who disposes of his labour by entering into a contract. This change is what we call progress, and is described by Sir H. S. Maine as being a movement from status to contract.

We may thus, with reference to the predominance of these traits, speak of the status and contract types of society. There is, however, a third type, which is called the militant, because its characteristics are most rapidly evolved when an aggregate of societies is compelled to coalesce to resist external aggression. In its simplest form the affairs of the State are managed by one man, but in proportion as he seeks to make his control complete, he finds himself unequal to the task, and is compelled to appoint others to assist him. The sequel is always the same, and resembles the splitting-up of cells in an organism ; the work is split up into various departments, and a central bureau is established.

Now no advanced society is without its bureau, and we are, in fact, acquainted with no example of an unmixed type. If we regard only the most

marked characteristics, we may say that India at the beginning of this century was an instance of the status-militant type, for each man's occupation, unless he became a soldier, was almost invariably that of his father. Indeed, according to the strict caste system, the military profession also was hereditary. Moreover, the price of labour, and of every commodity except food, was determined by custom; and this is still very generally the case. On the other hand, our own civilisation may, perhaps, be described as contract-militant, although its institutions constantly remind us of its descent from the earlier type.

Socialism, as usually advocated, seeks to replace contract by a mechanism of production and distribution consciously directed by the State; in other words, to remodel society entirely on the militant type. This, however, is only a means to an end, the end desired being an equal distribution of property. It is, indeed, an attempt to solve a problem which has necessarily come more and more into the foreground with the gradual disintegration of the family. The view which regards the family as the undying unit of society sees in the contrast of rich and poor families nothing more inequitable than in the contrast of rich and poor nations; but the conception of the

individual as the unit opens the way to doctrines on the equality of man, and brings with it the idea that all men ought to have an equal chance. It need not excite surprise, therefore, if the narrowing of the conception of the family is accompanied by a growing impatience with the distribution of private property. Bentham sought a defence for it in prescription, and economists have laid stress on the necessity of capital, and on the view that the returns to capital are the reward of abstinence ; but, in our opinion, it cannot be defended on any broader ground than general expediency, that it is the best at present attainable.

Of course it is not meant by this that Socialism is the logical outcome of the movement substituting the individual for the family. That would, if pushed to its extreme limit, result in each man getting what he earned himself, no more and no less, and this, again, would involve the appropriation of each man's property by the State at his death. Men, however, save as much for the sake of their families as for themselves, and, as long as this is so, the individual is not, and cannot be, the actual unit of society. The idea of the family is, however, so far narrowed, that heavier succession duties are imposed on bequests to those who are not near relatives. Here we have an important

principle of taxation, which might without injustice be pushed much further, and which is furnished not by Economics properly so called, but by Sociology.

Again, the means advocated by, and the end aimed at by, the socialist are two separate things, and there may be a movement going on in a society in favour of the extension of Government administration entirely unconnected with Socialism, while the main current is still in the old direction, the extension of contract. The working of the Postal Department by Government has been singularly successful, and no feeling exists anywhere in favour of doing away with it. On the other hand, although we are aware that it is dangerous to refer to contemporary politics, we may point, as evidence of the general movement, to free education, the object of which is to give certain classes a more equal start in life, and a better chance of freeing themselves from the status in which they were born; to the emancipation of women, to the general desire to sweep away the remnants of the feudal system, and, in short, to what is vaguely called the spirit of the age.

Now the usual attitude of those who have studied what may be called the spontaneous

development of society and the effects of Government interference, is in the direction of confining the latter within the narrowest possible limits ; and for this attitude there are good reasons, which, however, are not economical but sociological. On the other hand, the economist may point out the advantages to be derived in different cases from Government management, and the principles on which the administration should be conducted. Thus the Postal and Telegraph Departments in India have achieved extraordinary success, and this is because the principle they have adopted is to lay down lines wherever the receipts will cover the working expenses. The same principle might, in some cases, be advantageously extended to State railways. It can be easily shown that, for every penny the Government gives up by lowering freights, the public gains more than a penny, until the current expenses (exclusive of interest and all fixed charges) are no more than covered ; and that any reduction beyond this causes greater loss to the Government than gain to the public. Of course when the line is fully worked no further reduction can be made. Again, every penny raised by taxation costs the taxpayer more than a penny, so that it would be doubtful policy to raise money thus in order to

buy railways. When, however, Government has the money, or has the railway, and can afford the loss of income, when there is a big margin between working expenses and freights, and when the line is not fully worked, such a reduction as that indicated would have the same beneficial effect as a reduction in an import tax. On the other hand, when the line is already fully worked, nothing would be gained by Government taking it over merely in order to manage it on the same principles as a private company.¹

The raising of taxes is one of the functions of Government with which the economist is concerned. The broad principle that things should be made where they can be made cheapest, and that as little hindrance as possible should be placed in the way of trade, is no longer disputed in this country; but the economist is too apt to attach undue importance to it, and so to fail to understand those who do not agree with him. It is frequently said that our dependence on foreign trade renders it necessary that we should have the command of the sea; and as all nations cannot have the command of the sea, those who have not may fear to render themselves dependent on sea-going trade. Again, it may be considered for

¹ See note A.

political reasons inexpedient to excite the discontent which direct taxation is sure to evoke. But even if we leave entirely aside arguments outside the sphere of Economics, the most important principle relating to taxation is not the one quoted above, but this, that taxes should be raised by the method which causes least loss, direct or indirect ; and it may, and sometimes does, happen that direct taxation is not the cheapest. Thus, in India the amount raised from the income tax is small, and when any attempt is made to tax smaller incomes, the cost of collection increases very rapidly, and would soon swallow up all the receipts. The reason of this is the uniform poverty of the people, which is such that it does not pay to send round the tax collector. But the same thing might possibly happen from the population being thinly scattered over a very wide area. Here we have an extreme case, for the raising of money by direct taxation is not merely the dearest method, but is absolutely impossible ; and, as the first duty of the financier is to be solvent, he must shut his ears to all arguments on the other side. Thus, if from any cause the permanent expenditure of the Government of India were largely increased, they must either resort to indirect taxation or become bankrupt.

We now come to the question whether Economics is a mathematical science. Our answer to this depends on what is meant by the claim put forward. If it is a mere question of classification, on the ground that the science deals only with quantities, with what is capable of quantitative measurement, then we admit it; if it means that the use of mathematical symbols is often convenient, then also we admit it; but if the meaning is that we must, *nolens volens*, use such symbols, we emphatically demur. The style of an exposition must be determined by the character of those to whom it is addressed, and Economics interests many persons who have no taste for mathematical studies.

We may make one further remark regarding the 'quantitative' nature of the science. One result of our analysis will be to bring into prominence this idea of quantity, and to show how it runs through the conceptions of wealth, commodity, and value, and the result may be very clearly expressed by the use of the mathematical terms 'variable' and 'constant.' It will be seen that wealth has four characters—materiality, transferability, quantity, and utility, of which the two first may be treated as constants, while the others are variable; that if we drop one of the constants—

materiality, we have the idea of 'commodity ;' and that if we treat the variables alone, we have the idea of 'value.'

Herbert Spencer says that every study has its bias, and we may conclude this chapter by putting the question, Is the economist liable to any bias ; is he by any chance in danger of overestimating the importance of the industrial machine, of regarding it as an end and not as a means, and looking askance at consumption which does not increase its efficiency, of underestimating the services rendered by the classes he styles 'unproductive,' or of failing to see that nations may be moved by other motives than the desire for riches, and may, for example, reject his theories because they prefer safety to wealth ? To such a question the reader must give his own answer.

CHAPTER II

THE SCOPE AND METHOD OF THE PRESENT
WORK EXPLAINED

IN the present treatise we propose merely to analyse and define the chief terms of Economics, and to introduce only such of the facts and principles of the science as are necessary for this purpose.

When we examine these ideas, we find, at the outset, the contrast between labour and the wealth it produces, and are led to regard society as a vast organisation of industry in which each person takes a part and finally obtains his share of the total produce, which is distributed to the units of the society by the operation of Economic laws. This, however, is not the atmosphere in which the ideas have grown up. An examination of them seems to point to the fact that, originally, they referred only to material things, and whether this is true or not, certainly the easiest way to grasp what they now mean is, first, to clearly

understand their mutual relations on that supposition, and then to extend the conceptions thus obtained by dropping the qualification 'material.' For this purpose we may try to picture to ourselves what the words might have meant in a primitive society in which there were no contracts; although we do not assert that such a society ever actually existed, still less that it had conceptions exactly corresponding to those we now denote by the terms of Economics.

If we exclude contract, we exclude with it the idea of immaterial commodity. Of the four main classes of such commodities the first, credit, always implies an agreement to pay money. Labour can be exchanged only by means of an agreement or contract, and in such a primitive society as we have supposed, the slaves, and not their labour, would be bought and sold. Rights to be treated as commodities and separately exchanged must be divorced from possession, and this implies either an agreement, or theft, or fraud; and in the latter case, even up to modern times, only the person injured could recover; in other words, the right could not be transferred. The remaining class is that in which not the thing itself is given in exchange, but merely the possession of a privilege, or utility pertaining to it,

e.g., the privilege of shooting over a moor, of using a particular pathway, of leading water from a river for motive power, &c. Such a transaction would now be held to be a conveyance, and altogether different from a contract ; but we have evidence sufficient to show that, originally, conveyances and contracts were not distinguished from each other, so that this case also is disposed of. Now, if immaterial commodities are put on one side, the only terms left are wealth, value, exchange, capital, and money. These are, then, applicable only to material things ; value and exchange can be used only with reference to wealth, and wealth, value, and exchange are co-extensive in application.

To follow this out in detail would be to anticipate the future analysis, but we may give a brief outline sufficient to convey an idea of the whole. Man uses labour only to supply his needs and wants ; the things which do this he calls wealth, their capacity for doing this is the quality they have in common, and, according to that capacity, he desires them. This quality is called their value, and exchange gives a means of weighing the values of different things against each other, and so of measuring or comparing them. Money is evolved by the mere operation

of exchange, which mechanically sifts out one or more substances to act as a medium ; and this medium may become highly specialised and divorced from its original use by being stamped and marked in such a way that even a portion of it cannot be abstracted for that purpose without the whole losing its character of money. Wealth, again, may be divided into three classes, according to the use to which it is put : it may be simply consumed for the purpose of affording pleasure or averting pain, which is the final end for which all wealth is produced ; it may be employed as a means of further production, and is then called capital ; or it may be utilised as money. Capital and money are thus opposed to each other and to wealth personally consumed. Money may be classified into the portion used to keep the industrial machinery going and the portion not so used ; and the former of these is distinct from wealth employed for production, although the poverty of language or mistaken usage may compel us to call them by the same name.

So far, the ideas are simple and easily intelligible ; the difficulty in each case begins when the meaning of the word is extended so as to include what is not material. In the cases of wealth and

value this takes place along the lines determined by exchange, and the ideas of wealth, value, and exchange become almost inextricably confused together. We have preferred to confine the name wealth to what is material, but it is a matter of dispute among economists whether this course should be followed, or some or all of the wider class of immaterial commodities included. 'Value' is necessarily applied to the wider class, and the most difficult part of the analysis lies in showing the connection between this extended conception and exchange. In bank-notes we have a non-material medium of exchange ; and here, too, there is a difference of opinion as to what classification should be adopted, for some writers call bank-notes money and others do not. For reasons which will be explained hereafter, we have extended the term to the wider class, and included these. Of commodities, the most difficult to deal with is credit, and this we have separately analysed and defined. There remains capital ; and here the confusion is even greater than elsewhere, for under the influence of the peculiar and (as it seems to us) erroneous theory of barter, economists have been led to develop the notion of capital until the word has acquired a meaning altogether different from that which it

originally bore, and from that in which it is still popularly used. In these circumstances it is probably impossible to give a definition which shall satisfy all parties, and we can only plead that we have done our best.

The method of analysis and definition which we adopt is that laid down by Dr. Bain in vol. ii. book iv. of his 'Logic.' The rules to be followed are simple and easily applied. The first is to assemble for comparison the particulars coming under the notion to be defined—particulars meaning not every instance, but *representative* instances sufficient to embrace the extreme varieties. The next is to assemble for comparison the particulars of the opposed or contrasted notion. Thus, in the case of material wealth, we should have, under the first head, houses, food, clothing, jewellery, pictures, land, ships, railways, canals, &c.; and under the second, waste products of industry, human beings in a free country, air, a shower of rain, &c. From a comparison of these two classes we have, then, to ascertain the constituents of the notion to be defined; in other words, the attributes common to the first group, and some one or other of which is wanting in each member of the second; and from these we have to frame the definition.

In practice it will be found that this method proves insufficient only in one respect. It is comparatively easy to classify the cases in which a word is used, value or credit, for example, and to discover the common attributes of the class ; but we may still have much difficulty in determining what precise attribute or aspect of an attribute it denotes. Thus, the name credit is used only with reference to unconditional agreements to pay money ; but whether it means the agreements themselves, the state of mind of the person who trusts the other, or the interest of the payee in the agreement, the rule gives us no means of determining. Apart from this, there are only three important difficulties, and we are told exactly how to deal with these.

The first two arise in the course of the preliminary classification. When assembling for comparison—that is, when classifying—the particulars coming under the notion to be defined, we at first follow the popular meaning of the word ; but we then frequently find that in order to get together a class with important attributes in common, we must reject some cases or take in others. In such circumstances we are told, if need be, to depart from the received denotation, and to follow the golden rule of classification,

which is thus laid down: 'Of the various groupings of resembling things, preference is given to such as have in common the most numerous and most important attributes.' Thus, if we examine the popular use of the word wealth, we find that while primarily it is applied only to what is material, immaterial commodities are sometimes more or less capriciously included; and we find, further, that the only classes which have in common attributes sufficiently important to form the basis of a definition, are material wealth, and the wider class which is arrived at by retaining all the attributes common to material wealth, with the exception of materiality. In this case, therefore, we have only two courses open to us: we must either narrow the popular meaning and restrict wealth to what is material, or enlarge it so as to include the whole of the wider class. Another important example of this will be found in the chapter on money.

The next difficulty is that of the doubtful margin. The animal and vegetable kingdoms are two well-contrasted classes, and yet we find when we examine the lower forms of life, that we cannot draw a hard and fast line between them. The mercury in the barometer, in rising from thirty to thirty-one inches, passes through all

the intervening space, while the marks at the side by which we measure it are at determinate distances, and, however close together we bring them, the mercury will always pass through some space from the one to the other. These marks are our language, while the movement of the mercury is symbolic of nature as we actually see it. Our attempt to represent external nature by language is, in fact, very similar to the attempt to explain the science of quantity by means of numbers ; for while 'the science of number is founded on the hypothesis of the distinctness of things, the science of quantity is founded on the totally distinct hypothesis of continuity.'¹

On this point Dr. Bain says :² 'There is but one solution of the riddle. A certain *margin* must be allowed as *indetermined*, and as open to difference of opinion, and such a margin of ambiguity is not to be held as invalidating the radical contrast of qualities on either side. No one would enter into a dispute as to the moment when day passed into night, nor would the uncertainty as to this moment be admitted as a reason for confounding day and night. We must agree to differ upon the instants of transition in all such

¹ *Lectures and Essays*, W. K. Clifford, p. 240.

² *Logic*, vol. ii. p. 160.

cases. While the great body of the non-metals can be distinctly marked off from the metals, we refrain from positively maintaining arsenic and tellurium to be of either class; they are transition individuals, the "frontier" instances of Bacon, and in that position we leave them.'

We shall encounter several examples of this, *e.g.*: Is a navigable river, a public street, or a public building, wealth? Is a title or decoration which can be purchased, but not subsequently transferred by the purchaser, a commodity? Would the term credit be used with reference to an obligation to pay the debts of an inherited estate, or to return money paid by mistake?

The third difficulty is as follows. In classifying wealth and money we find that in each case we get two important classes, one by retaining the attribute of materiality, and the other by dropping it, and the question arises—To which class shall we give the important name wealth or money? The rules laid down are: First, important meanings in current use, or meanings at the base of important predications, should not be disturbed; secondly, the associations of powerful sentiment should not be reversed.

As regards wealth, we have already explained that there are only two courses open to us, to

restrict the meaning or to extend it. If, however, we examine the latter alternative, we find that it would transgress the second of these rules. Strong associations have clustered round the name wealth. It is vaguely thought of as something which can be accumulated, which is the produce of labour, which it is the object of labour to produce, and the creation or destruction of which is a matter of importance to the national well-being. But if we include all immaterial commodities, we thereby include labour, which is opposed to and contrasted with wealth, and we also include rights and credit, which can be created and extinguished by a stroke of the pen. If two persons each agree to pay the other one thousand pounds on a certain date, is this a creation of wealth? To regard it as such is to ignore popular sentiment. For these reasons we have retained the qualification material, but the question will be understood more clearly when we have classified immaterial commodities, and are in a position to point out what the extension of the denotation really means.

In the case of money it is of less consequence to which class we apply the term, than it is that writers should agree to use it in the same sense. The first of the two rules, however, gives a decisive answer to the question. In popular language,

and in that of the money market, money includes not only coin, but bank-notes, and as we could not change this use of the word even if we wished, our only course is to acquiesce in it.

It is to be observed that all these are questions, not of fact, but of the propriety of classification, and yet this is very frequently overlooked. It is not unusual for arguments to be adduced to prove that credit is wealth, or that bank-notes are money, whereas the only questions that admit of argument are whether the definitions should be so framed as to include these. Thus Mr. Macleod starts with the definition of wealth as 'whatever has a power of purchasing;' and then proceeds to prove deductively that credit has a power of purchasing, and is, therefore, wealth, which is a genuine case of the *petitio principii* of the syllogism.

As another example of this error we may take the question, 'Is labour the cause of wealth?' Mr. Carey says that it is, and that the exceptions are so few as only to give emphasis to the rule. Mr. Macleod applies the Baconian tests to this statement, and declares it to be false, for neither is labour invariably followed by an enhancement of value, nor is an enhancement of value invariably preceded by labour. Here it is obvious that the dispute is not as to the facts of the case, but as to

the meaning of the word 'cause.' The combatants are looking at different sides of the shield. If a man slips on a ladder and is killed, what is the cause of the fatality? In one sense it is the slipping, in another sense it is the action of gravity. We shall not, however, attempt to decide the dispute by defining the word 'cause,' for that is a task that would require a volume to itself.

The only writer on Economics with whose works we are acquainted who has defined all the terms used, is Mr. Macleod. Each of his definitions will be examined in its proper place, but there are some general remarks regarding the method followed by him which may conveniently be made here. The chief objection to it is that he does not get together a list of the things he wishes to include in his definition, but searches the works of writers ancient and modern, and endeavours to find a phrase which will harmonise with their use of the word. In only one case, that of money, does he give a fairly exhaustive list, though strangely enough his definition is not based on it. There is thus no preliminary analysis, and his definition does not attempt to state the constituent elements of the notion, but merely to single out one or two properties. Thus wealth is defined as 'whatever has a power of purchasing,'

and money as 'legal tender,' definitions which may enable us to know wealth or money when we come across them, but which give us no clue to their nature.

There are two other objections which, though rather to the definitions arrived at than to the method itself, would have been avoided had the latter been sound. The first is, that he continually transgresses the rule requiring that respect should be paid to the popular use of the word. Thus he classes credit as wealth; he regards Bank of England notes, but not other notes, as money; and he defines capital so as to include labour, although the two are almost invariably opposed. His definitions of credit as 'a right of action against a person to pay or do something,' and of value as a ratio, are singularly ingenious, but are open to the same objection, although the former might have been brought very nearly into harmony with popular usage by omitting the last three words. This definition of value is similar to that of 'specific gravity,' and the word might be consistently and intelligibly used in this sense; but a ratio is an abstract whole number or fraction, and this is very far removed from the popular notion of what the word means.

The other objection is to the curiously legal

view he takes of all the conceptions. Wealth is said to consist exclusively of exchangeable rights ; credit is defined as a right of action, money as legal tender, and Economics as the science of the exchanges of rights. Against this view it may be urged that all the cases are not included, for there may be loans and exchanges which the law would not recognise, and in which there would be no transfer of rights ; but the real objection is, that this legal covering is quite unnecessary, and being unnecessary, is for that reason alone highly objectionable.

The method sketched out above enables us to arrive in each case at a definition, and, if the rules are followed, we may be sure that it will be a good one. At the same time in every science the final test of a definition lies in what it does, in the light it throws upon the subject, the ease with which it enables the problems to be grasped, and the number of important propositions it gives rise to. Hence, as we propose to deal merely with the groundwork of the subject, it may be urged that the working character of our definitions cannot be fairly tested. The effect of having coherent and definite in place of incoherent and vague conceptions is, however, so quick and penetrating, that it at once removes a great deal of the haze

which surrounds the subject, puts life and breath into propositions which have long ceased to be more than formulas repeated by rote, such as that capital is saved, and that industry is limited by capital, and renders immediately intelligible some of the most difficult problems of the science. We hope and believe, therefore, that, when the analysis is complete, the reader will find that this supreme test also has been fulfilled.

CHAPTER III

THE LAW OF CONSUMPTION

THIS law, says Professor Jevons, doubtless furnishes the true key to the problem of Economics, and, before proceeding to discuss it, we may briefly explain wherein its importance lies.

Supply and demand are the two chief elementary notions of Economics, and this law states, in the simplest possible form, the manner in which the one acts on the other. It leaves exchange out of account altogether, and examines simply the effect of supply and demand on the individual, and it lays down that, when one individual alone is considered, his demand for a commodity decreases as his supply of it increases. When we introduce exchange, and then describe in words how the law practically works, we formulate the well-known law of supply and demand. If for no other reason than this it would deserve the closest study; but its importance is very

TABLE SHOWING THE CLASSIFICATION OF COMMODITIES

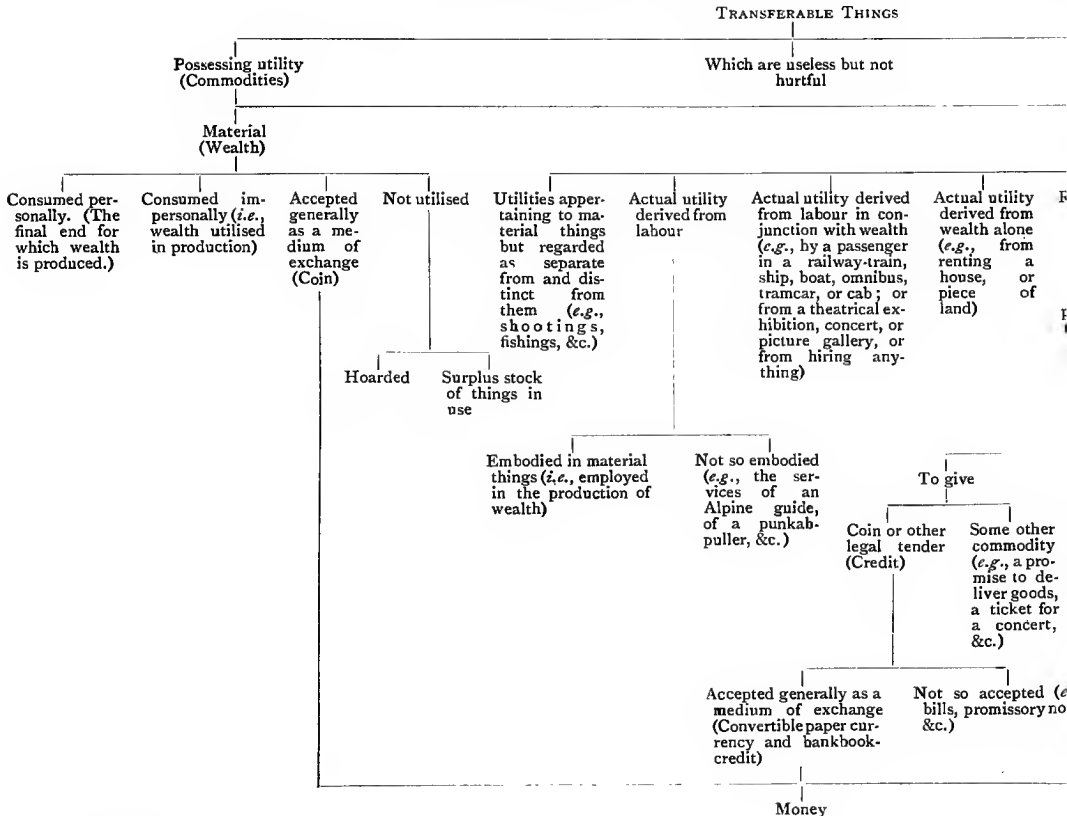
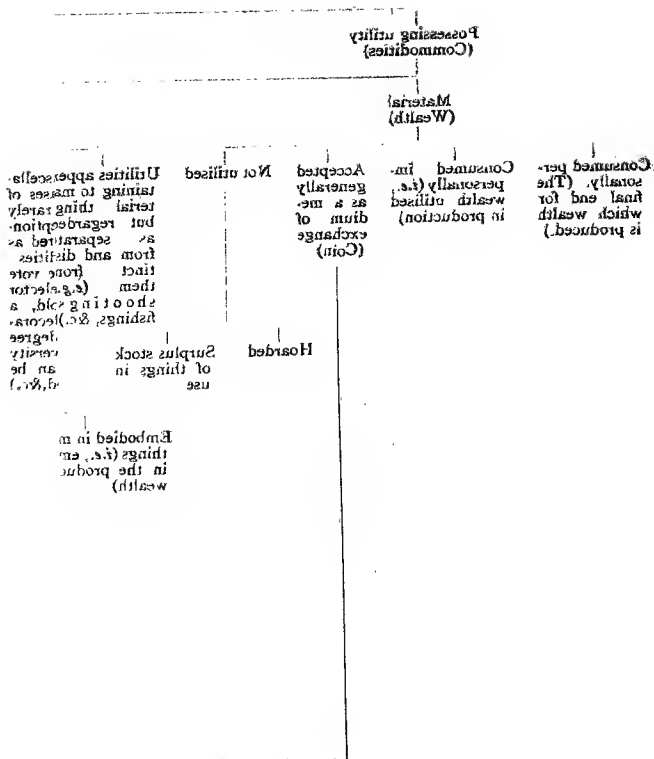


TABLE SHOW



much greater, for it is at the base of the ideas of wealth and value. As the supply increases the demand decreases, and finally becomes zero or even negative. That it does not in all cases become negative is due to the fact that the surplus is left unused. If a man were compelled to drink all the water a water company supplied him with, he would take prompt measures to restrict the supply. Now, as long as the demand is greater than zero, the thing is called wealth ; when the demand is zero, it is said to be valueless, and is not wealth. Thus the action of supply and demand determines whether a particular portion of matter is or is not wealth. Again, just as things of equal sizes may be of different densities, that is, have different quantities of matter in them, so equal quantities of matter may have different quantities of wealth in them ; and to indicate the greater or less amount of wealth that there is in a particular portion of matter, we use the word value. As we shall see hereafter, supply and demand determine not only whether a particular thing is wealth, but also how much wealth there is in it, or, in other words, what its value is.

The following is the exposition of the Law of Consumption given by Professor Jevons :

‘ Let us now investigate this subject a little

more closely. Utility must be considered as measured by, or even as actually identical with, the addition made to a person's happiness. It is a convenient name for the aggregate of the favourable balance of feeling produced—the sum of the pleasure created and the pain prevented. We must now carefully discriminate between the *total utility* arising from any commodity and the utility attaching to any particular portion of it. Thus the total utility of the food we eat consists in maintaining life, and may be considered as infinitely great ; but if we were to subtract a tenth part from what we eat daily, our loss would be but slight. We should certainly not lose a tenth part of the whole utility of food to us, it might be doubtful whether we should suffer any harm at all.

‘ Let us imagine the whole quantity of food which a person consumes on an average during twenty-four hours to be divided into ten equal parts. If his food be reduced by the last part, he will suffer but little ; if a second tenth part be deficient, he will feel the want distinctly ; the subtraction of the third tenth part will be decidedly injurious ; with every subsequent subtraction of a tenth part his sufferings will be more and more serious, until at length he will be upon the

verge of starvation. Now, if we call each of the tenth part *an increment*, the meaning of these facts is, that each increment of food is less necessary, or possesses less utility, than the previous one. To explain this variation of utility, we may make use of space-representations, which I have found convenient in illustrating the laws of Economics in my college lectures during fifteen years past.

‘Let the line ox be used as a measure of the quantity of food, and let it be divided into ten equal parts, to correspond to the ten portions of food mentioned above. Upon these equal lines are constructed rectangles, and the area of each rectangle may be assumed to represent the utility of the increment of food corresponding to its base. Thus the utility of the last increment is small, being proportional to the small rectangle on x . As we approach towards o , each increment bears a larger rectangle, that standing upon III being the largest complete rectangle. The utility of the next increment, II , is undefined, as also that of I , since these portions of food would be indispensable to life, and their utility, therefore, infinitely great.

‘We can now form a clear notion of the utility of the whole food, or of any part of it; for we

have only to add together the proper rectangles. The utility of the first half of the food will be the sum of the rectangles standing on the line oa ; that of the second half will be represented by the sum of the smaller rectangles between a and b . The total utility of the food will be the whole sum of the rectangles, and will be infinitely great.

‘The comparative utility of the several

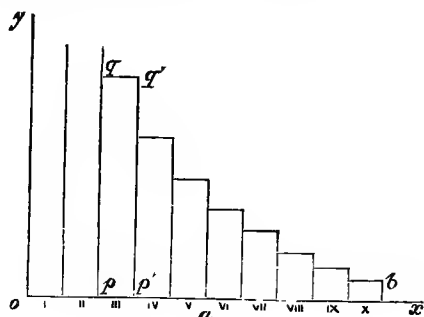


FIG. I

portions is, however, the most important point. Utility may be treated as *a quantity of two dimensions*, one dimension consisting in the quantity of the commodity, and another in the intensity of the effect produced upon the consumer. Now, the quantity of the commodity is measured on the horizontal line ox , and the intensity of utility will be measured by the length

of the upright lines, or *ordinates*. The intensity of utility of the third increment is measured either by $p q$, or $\dot{p} \dot{q}$, and its utility is the product of the units in $p \dot{p}$ multiplied by those in $p q$.

‘ But the division of the food into ten equal parts is an arbitrary supposition. If we had taken twenty or a hundred or more equal parts, the same general principle would hold true, namely, that each small portion would be less useful and necessary than the last. The law may be considered to hold true theoretically, however small the increments are made; and in this way we shall at last reach a figure which is undistinguishable from a continuous curve. The notion of infinitely small quantities of food may seem absurd as regards the consumption of one individual; but, when we consider the consumption of a nation as a whole, the consumption may well be conceived to increase or diminish by quantities which are, practically speaking, infinitely small compared with the whole consumption. The laws which we are about to trace out are to be conceived as theoretically true of the individual; they can only be practically verified as regards the aggregate transactions, productions, and consumptions of a large body of people. But the laws of the aggregate depend,

of course, upon the laws applying to individual cases.

'The law of the variation of the degree of utility of food may thus be represented by a continuous curve $p b q$ (fig. 2), and the perpendicular height of each point of the curve above the line $o x$, represents the degree of utility of the

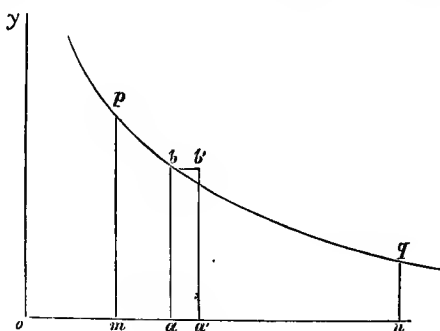


FIG. 2

commodity when a certain amount has been consumed.

'Thus, when the quantity $o a$ has been consumed, the degree of utility corresponds to the length of the line $a b$; for if we take a very little more food, $a a'$, its utility will be the product of $a a'$ and $a b$ very nearly, and more nearly the less is the magnitude of $a a'$. The degree of utility is thus properly measured by the height of a very narrow rectangle corresponding to a very small quantity

of food, which theoretically ought to be infinitely small.'

The formal statement of the law given by Professor Jevons has already been quoted in the first chapter, but may be repeated here: 'The degree of utility varies with the quantity of commodity, and ultimately decreases as that quantity increases.'

We have now to examine the terms 'utility,' 'production,' and 'consumption,' and the extension of the law to what may be called impersonal consumption.

When we come to define wealth, we shall find that whatever is wealth possesses utility, and that if a thing ceases to possess utility, it ceases to be wealth. The term, however, is applied also to material things which are not classed as wealth, *e.g.*, the Gulf Stream, the River Thames, a shower of rain, a sea-fishery, &c.; to immaterial commodities, such as labour, rights, &c.; and to immaterial things which, not being transferable, are not regarded as commodities; for example, laws, customs, institutions, &c. On the other hand, when injury instead of pleasure or benefit results, the name is not applied, although the difference may arise not from any alteration in the nature of the thing, but merely from the time

and place being unsuitable, *e.g.*, when excessive rain damages the crops.

The definition of utility given by Bentham, and adopted by Professor Jevons, is as follows : ' By utility is meant that property in any object whereby it tends to produce benefit, advantage, pleasure, good, or happiness, or to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered.' Some explanation, however, is necessary to clear this definition from ambiguity, and render it fully intelligible.

In the first place the question arises, Does utility include the benefit or advantage obtained by exchanging a thing for something else? A diamond may be exchanged for food which will satisfy hunger. Is this part of its utility? We might, if there were any advantage to be gained by so doing, extend the meaning so as to include this ; but the advantage is the other way, and as both economists and the public have always opposed use to exchange, we shall do so also, and shall regard the utility of a thing as confined to the benefit or advantage which can be derived from it without selling it.

It is sometimes denied that utility and value are qualities, but this view can proceed only from

a misapprehension as to what is meant by a quality. We may take any number of things and compare them from any point of view we like, and however absurd or artificial the comparison may be, we say that those which agree in the point compared possess a quality in common. Thus we may compare men as to their weight or height, as to their ears being pointed, as to their beauty, as to their power of jumping like a frog, or standing on one leg like a goose, &c., and in each of these cases we say that they possess the quality compared in a greater or less degree. Value, therefore, is a noun denoting a quality, and is similar to weight, height, strength, and swiftness, and has an adjective valuable, corresponding to heavy, high, strong, and swift.

In the next place utility, when applied to wealth, may be, and is, used in four different senses. This will be rendered clear by a reference to the diagram on page 52. If om indicates the quantity consumed, then the height of the line mP denotes the final degree of utility, or, as we may call it for the sake of brevity, the final utility. Again, if the curve cuts the axis oy in the point y , oy represents the initial utility, the space $omPy$ the total utility, and the curve itself shows the manner in which the utility varies with

the quantity. When it is said that the utility of iron is greater than that of platinum, the meaning probably is, that man obtains more benefit from the whole of the former than from the whole of the latter, in which case the total utility of the one is compared with that of the other. 'A pound of iron is of greater utility than a pound of platinum,' compares the initial utility of the two, the supposition being that some person has in his possession one pound and no more of each. The contrary statement, that the utility of a pound of platinum is greater than that of a pound of iron, alludes to the final utility, which, as will be hereafter seen, is either identical with, or corresponds to, the value. Finally, in the proposition that value depends on the supply and the demand, or on the quantity and the utility, the reference is not to the utility at any one point of the curve, for that alone does not determine the value, but to the utility at all points, to the curve itself. There are thus four meanings—total utility, initial utility, final utility, and curve of utility—which can be assigned to the word, and it is necessary, therefore, either to specifically state which is referred to, or to see that the context renders this clear.

Professor Jevons has said, and the statement

has been repeated by other writers, that value depends upon utility alone. The precise meaning intended here is not clear, as value is not defined, nor is it apparent in what sense utility is to be understood ; but it will be obvious from the foregoing discussion that, whenever the latter term is used, there is always some reference, either express or implied, to quantity. Perhaps, however, the best way to clear up the point will be to state what the exact connection between the ideas really is, although the explanation will not be fully intelligible until the chapter on value has been perused.

In popular language the word value is used in three different senses. In the first place, it means the esteem in which things are held, or rather the intensity with which they are desired, and is similar to fear, hate, love, &c. ; in the second place (value in use), it classifies things according to their capacity for satisfying man's needs and wants, or, in other words, denotes their final utility ; and, in the third place, it compares them with respect to their power of purchasing other things. Thus the word denotes three distinct qualities, but the key which unlocks the difficulties connected with the subject is the proposition that the three qualities correspond to each other, and

that each of them implies the other two; or, in other words, that if things were classified according to the degree in which each quality was present, and then the three lists were compared, they would be found to be identical. If a workman buys food rather than candles, and sits without light at night in order that he may have more to eat in the morning, we say that he desires the food more than the candles, and that the final utility of the former is greater to him than that of the latter. But we have absolutely no other criterion of the comparative utility of the things, and of his desire for them, than his action in purchasing one rather than the other. The identity is, in fact, one of language; for, when we say that the desire for one thing is greater than that for another, we mean by greater that which carries the day and influences the will, and therefore directs the action, of the individual referred to; and we can assign no other meaning to greater and less in this connection.

Now, when we seek to adapt this popular language to scientific use, we must give up designating those three qualities indiscriminately as value, and must agree to confine the name to one or other of them. Economists have hitherto directed their attention almost exclusively to the third sense—purchasing power, which has resulted

in the bewildering conception of value as a ratio ; but we think that a much firmer and a much easier grasp of the subject is obtained by identifying it with the second—final utility. In that case we may say that the value depends on the quantity and the utility ; meaning by the latter term, as explained above, the whole curve.

Professor Jevons does not formulate any explicit statement of the law of labour, although he discusses it, but we may frame the following on the model of the law of consumption : ‘ The pain of labour varies with the quantity of work done, and ultimately increases as that quantity increases.’

The theory which this law gives rise to is, that the labourer goes on working until the reward he gets is no more than sufficient to counterbalance the increasing pain of labouring. Many interesting results follow from this, *e.g.*, that the number of hours men will willingly work depends on the rate of pay as well as on the nature of the employment, and that a fixed number of working hours for all labourers* would injure the majority of them.

It may be observed that the law relating to labour and that relating to consumption are both connected with the psychological law, that

when there is a sufficient supply of energy, the putting of any organ to its proper use or function brings an access of pleasure, which is followed by a period of indifference ; and finally, if the use be persisted in, by fatigue and pain. Thus, to take as an example the pleasure of riding on horse-back, for the first hour or two in the early morning, when there is a superabundance of energy, the enjoyment is great ; afterwards the feeling may be described as one of neutrality or indifference, and, if the exertion be prolonged, weariness and fatigue supervene. The sequence will be the same whether the exercise has no aim beyond the gratification of the moment, and is not described as labour, or whether it is undertaken by a sheep farmer to look after his sheep, or an indigo planter to look after his crop.

Professor Jevons, in his 'Theory of Utility,' makes the supposition that all commodities are divisible into infinitely small portions, and that they are consumed in successive infinitely small increments, and he uses the expression 'final degree of utility,' as meaning the degree of utility of the last addition, or the next possible addition, of a very small, or infinitely small, quantity to the existing stock. This definition applies to such things as grain, cloth, tea, sugar, liquids, &c., but

many commodities, *e.g.*, a clock, a chair, a suit of clothes, are not thus divisible, and if we are to identify value with final utility, we must assign to that expression a meaning which shall be applicable to all cases. By final utility, therefore, we shall understand simply the utility of the last increment consumed, whether that increment be large or small.

It is to be observed, however, that although commodities are not infinitely divisible, consumption can in almost all cases be as accurately adjusted as if they were so. A consumer may be unable to purchase less than one suit of clothes at a time, but he may spread its wear and tear over a longer period; he may wear it for a month, a week, or a day longer. Moreover, there is a choice not only as regards quantity, but as regards quality, for things possessing utility for the same purpose, but in different degrees, may be classed together as, from this point of view, one kind of commodity. If regard is had to these considerations, the divisibility of the commodity, the time over which its consumption is spread, and the choice of quality, it will be seen that in every direction expenditure can be very finely calculated. There does not appear to be any important exception to this rule. A new

kind of outlay, such as the purchase of a horse or yacht, seems at first sight to be one, but even in this case the new expenditure can be led up to by hiring.

There are no terms in Economics which bear about them more palpable traces of the conflicts through which they have gone than 'production' and 'productive.' The latter suggests an increase in the quantity of wealth, that is, in its value, for the quantity is measured not by the weight or the bulk, but by the value ; and as the former is opposed to 'distribution' in the well-known phrase 'production, distribution, and consumption,' we get the idea that the transport of wealth from place to place does not increase its value, a now almost forgotten theory. In the phrase 'cost of production,' however, this theory is discarded, for the cost referred to is that of placing wealth in the market, so that distribution is now looked upon as a kind of, and not as opposed to, production. Again, the ideas of capital and production have become associated together, but what does the capital of a tramway company, an insurance company, a bank, or a stockbroker produce ?

The point raised is this : can we extend the meaning of production so as to include all the

operations mentioned at the end of the last paragraph? If not, we must define capital otherwise than as wealth or property used in production. This is a question, however, which cannot be fully discussed until we have classified and examined the different kinds of capital, and we shall therefore confine our attention in this chapter to the production of wealth properly so called, that is, to the production of material wealth.

Examples of things produced are food, clothing, books, houses, grain, fruits, cattle, tools and machinery, coal, factories, ships, statues and other works of art, &c. In all these cases there is an increase of utility brought about either by labour alone, or by labour assisted by wealth in the form of tools, machinery, &c. When there is no increase of utility, *e.g.*, in the rowing of a boat race, the process is not called productive; nor, when labour is absent, is the term applied, *e.g.*, to the deposit of sulphur by a volcano, or the formation of coal by natural causes, operations which are neither initiated nor controlled by human agency. There are thus four ideas implied in the operation: (1) an increase of utility; (2) the labour which creates or increases the utility; (3) the wealth which assists and augments the efficiency

of the labour ; and (4) the material substance in which the utility is embodied.

The opposed or contrasted notions are, first, consumption, which will be discussed presently ; and, secondly, operations which lead not directly but indirectly to an increase in the utility of material things. Under the second head we have scientific discoveries, banking, insurance, the Stock Exchange, &c.

We may, therefore, provisionally define the production of wealth as 'any operation which directly increases the utility of a material thing.' As, however, the utility here referred to is the final utility, we prefer to amend the definition to 'any operation which directly increases the value of a material thing.'

Before leaving this portion of the subject, we may examine the various ways in which an increase of such utility may take place. It may arise from an inorganic change in the form of the substance, as when clay is made into bricks, pots, or statues, wool into cloth, esparto grass into paper, coal into gas, or paint and canvas into a picture. All such industries may be classed under the head of Manufacture. In Agriculture, again, we have organic change, the multiplication of living organisms. Such production is subject to

the biological law that a fixed area of land cannot be made to sustain an indefinite number of plants or animals. In the next place, the increase of utility may be brought about by a better distribution in space or a better distribution in time. Ice may be useful in summer where it is useless in winter, and may be stored up in the latter season ; or it may be brought from Canada, where it is not wanted, to London, where it is wanted. Under this head of distribution we have the wholesale, retail, and carrying trades. The shop-keeper tickets his goods at a certain price, and keeps them till they are wanted at that price, that is until, in the course of time, they acquire that value. There is, however, yet another class. The fish swimming in the sea, the ship sunk in deep water, the undiscovered mine, are not reckoned as wealth, and are, therefore, not regarded as having either value or utility until they come into the actual possession of some one, until they are actually appropriated and transferable. To industries of this nature some such name as Appropriating may be given. The name would be applied to sea fishing, whale fishing, pearl diving, gold seeking, and, in some cases, hunting ; but mines and quarries already discovered

would seem to fall more properly under the third head, distribution.

In connection with Agriculture, it may be pointed out that the word land is used by economists in three different senses, namely, first, land employed for agriculture ; secondly, land as opposed to water ; and thirdly, the whole surface of the globe, land and water ; *e.g.*, when the requisites of production are described as land, labour, and capital, and the first is held to include any raw material whatever, even though obtained from the sea. In this book, when the word land is used, it is so in the ordinary sense of land opposed to water, the solid or fixed part of the surface of the globe as distinguished from the fluid or movable part.

Consumption is opposed to production, but the contrast is not exact, as production means putting utility into a thing, and the opposite of that is destruction. In Annandale's dictionary the meaning of the verb 'to consume' is given as 'to destroy by separating the component parts and annihilating the form of the substance, as by fire or by eating ; to destroy by dissipating or by use ; to expend ; to waste ; to spend.' This definition associates together the two ideas of consumption and destruction, and is correctly

applicable to such things as food, clothing, books, houses, tools and machines, coal, factories, ships, &c., but, on the other hand, there are other things which, although no doubt affected by time, are yet practically permanent. Such are statues and other works of art, permanent drainage works, railway cuttings, &c. As all these are consumed in an Economic sense, we must drop the associated idea of destruction from the definition, and may, therefore, frame it as follows: 'Wealth is said to be consumed when it is utilised or made to yield utility.'

The term 'consumption,' like 'production,' is primarily applicable only to material commodities, but immaterial commodities are governed by the Law of Supply and Demand, and therefore, also, by the Law of Consumption, for the one includes the other. Some of these are means of acquiring or retaining possession of material wealth, and their utility may, therefore, be regarded as measured by that of the wealth to which they relate.

The wealth which assists production is made to yield utility, and is, therefore, consumed, and the utility yielded is embodied in other wealth. There are thus two kinds of consumption, and

they may be distinguished by the adjectives 'personal' and 'impersonal.'

Consumption and production may be contrasted with exchange, which is neither the one nor the other; for it is not to the number of times a thing has been exchanged that its utility or value is due, but to its being in a suitable form, at a suitable place, and at a suitable time.

The remark in the preceding paragraph, that the utility of a thing does not depend on the number of times it is exchanged, may give rise to some difficulty at the present stage, for it apparently conflicts with the proposition that in an exchange both parties benefit. The utility of a thing to anyone is the good he derives from it, and, therefore, if we refer to the absolute amount of good, the person who derives it must either be specified or understood. Here, however, we are referring to the relative final utility or value, and, as will be hereafter seen, that is the same for all persons, so that in this sense we may properly speak of the utility of a thing without specifying to whom it is useful. When we speak of the utility of the things in a shop, it is to this, and not to their utility to the shopkeeper, that we are referring. The point, however, will not be fully

understood until the chapter on Value has been perused.

We now come to consider the application of the Law of Consumption to wealth impersonally consumed, or, in other words, to wealth used in production.

The factories and their machinery, the railways, shipping, shops, &c., are all adjusted to a certain supply of labour, and cannot maintain the same average out-turn per workman if they employ a much larger quantity. This is what is meant when it is said that industry is limited by capital, and we see, therefore, that if the amount of capital remains the same, labour obeys the law of consumption; in other words, its utility decreases as the supply increases. On the other hand, it is equally true, though practically much less important, that the employment of capital is limited by labour, for more factories and more ships require more hands to work them, so that if the quantity of labour remains the same, the utility of successive equal amounts of capital decreases. The real difficulty arises when we endeavour to bring a third case, that in which both capital and labour increase together, under the law.

It is well known that if a number of labourers combine together with suitable capital for manu-

facture, their average out-turn will greatly exceed what it would be if each worked separately with a proportionate share of the capital. The result is brought about by each man devoting himself to a separate part of the work, and the process is called the division of labour. The whole organisation of manufacturing industry, however, and its division into different trades, is an extension of the same principle, for the organisation would be useless if the separation into trades did not increase the average out-turn.

Now if we start with a certain number of labourers and a suitable amount of capital, and if we then double the labour and the capital, the quantity of commodity produced will be more than doubled; and if we treble it, the third increment of commodity will be greater than the second, and so on. Professor Jevons considers the effect of successive equal increments of commodity in reducing the degree of utility, but here we see that if we take successive equal increments of capital and labour, and measure the utility by that of the commodity produced, we have to consider the effect on the degree of utility of *successive increasing increments of commodity*. Thus, if we represent the utility, as Professor Jevons does in the figure given above, by successive

rectangles, instead of rectangles on equal bases, we shall have rectangles on constantly increasing bases ; and what we have to find out is, whether these rectangles with constantly increasing bases are decreasing in area, that is to say, whether the utility follows the general Law of Consumption.

At the outset, however, we may put Agriculture on one side. The crop on land already cultivated may be increased, may be even doubled or trebled, but it cannot be multiplied indefinitely. Not all the capital and labour in the world will raise a sack of corn from one square foot of soil. Thus here successive applications of equal amounts of labour and capital yield not increasing but decreasing increments of commodity ; and, as the utility of successive *equal* portions of commodity diminishes, it follows that the utility of successive decreasing portions diminishes still faster, or, in other words, that capital and labour applied to agriculture obey the Law of Consumption. We have thus only one case to bring under the law, that of capital and labour applied to non-agricultural industries.

It might be possible to construct a theoretical proof of this proposition in the following way. It might be argued that there are physical limits to our powers of enjoyment, and that, if we

considered separately each kind of wealth which labour and capital can turn out in indefinite quantities, we should find that, after a time, the utility of any addition to our stock of it would be simply nil. This means that its final utility would be zero, or, in other words, as we shall hereafter see, that it would be valueless; and as the value of wealth impersonally consumed depends on the value of the produce, it follows that the final utility or value of wealth impersonally consumed would also ultimately be zero.

Without, however, going to such theoretical lengths, that in the world, as it actually exists, the law does hold, may be readily shown in the following way. The final utility of each increment of labour and capital is measured by the final utility . . . multiplied by the quantity, or, in other words, by the total value, of the addition to the produce, and, if in any manufacture this value went on increasing, labour and capital would crowd into that employment, and the conditions of industry would be altogether different from what they are. What really follows excessive crowding into one branch is over-production and loss to all concerned. Hence the value of the addition to the produce, and, therefore, the value or final utility of the additional increment of labour and capital, ultimately

decreases, or, in other words, wealth used in production is subject to the Law of Consumption.

The Law of Consumption is called by Professor Jevons 'The Variation of the Final Degree of Utility;' but the former title has been chosen because it is shorter, more readily intelligible, and more emphatic, as the title of an important law ought to be.

CHAPTER IV

EXCHANGE

EXCHANGE is a species of transfer, the other modes being force, fraud, free gift, mistake, and inheritance, and we may, therefore, consider the wider term first.

When a commodity is transferred, the language used to describe the transaction is that the person to whom it is transferred obtains or acquires possession, or is put in possession, and that the possession is what passes from the one party to the other. We have, therefore, to ascertain what is meant by the transfer and possession of a commodity, but here we are met with the following difficulty. Before we can discuss what these terms mean in all cases, we must first determine what it is that passes from the vendor to the purchaser, in other words, we must analyse the idea of commodity, and the simplest way to do this is to begin with the idea of wealth. In the present chapter, therefore, we shall confine our-

selves to examining what is meant by the transfer and possession of material wealth, and of certain immaterial commodities in which the conception is the same, and shall reserve the final discussion and definition of the terms until we arrive at the chapter on Commodities.

As representative instances of the idea we are discussing we may take a loaf of bread, a picture, a ship, a house, a fortified place, a landed estate, the privilege of fishing in a river, a bill of exchange, a bank-note, a transferable right, the good-will of a business, the practice of a physician, &c.

An examination of this list shows that the possessor is a person who has the power both of utilising the thing himself and also (for this is not always a necessary implication, *e.g.*, when the thing is a picture or a landed estate) of preventing others from doing so.

This power may be purely a physical fact, as when the possession of a fortified place is transferred, the one party marching in and the other marching out; or when a ship hauls down its flag, and the victors take possession and lock up the crew; or it may be wholly or partly dependent on law, or on the consent of other persons.

The fact that the law will protect the possessor in the lawful enjoyment of the commodity is expressed by saying that he has a right to it. What, however, if the wrong person is in possession? The first thing the law seeks to do is to prevent people coming to blows, and, therefore, it lays down rules for the purpose of determining who the actual possessor is, it protects him from any attempt to forcibly dispossess him, and it directs the other party to go to the civil court and seek to obtain possession through it.

There is one curious case which primitive law did not distinguish from a contract, but which modern law regards as a conveyance. A landed estate, like other things, may be put to many different uses, and the privilege of putting it to one of these may be sold apart from the estate itself, *e.g.*, the privilege of fishing in a stream or of walking across a piece of ground. One simple way of looking at this is as an agreement between the possessor of the estate and the other party that the former will not interfere with the latter; but the view of the law now is that such a privilege may be sold outright, and is, in fact, a separate commodity. Here the actual possessor is the person who has been placed in possession, *e.g.*, by the former owner or by a court of justice, or the

person who has used the privilege without interruption for a certain time.

A legal extension of the idea of actual possession may be noticed. It is held to include not only possession by the person himself, but possession on his behalf by his servant or agent.

We may now examine the meaning of transfer in these cases.

When movable wealth is in question, the meaning is simple; the article changes hands, there is a change of possession, and the transaction is complete. The right to the thing usually, but not always, passes at the same time.

When the thing sold is a landed estate, however, the matter is not so simple. How is the precise moment of transfer to be determined in such a case? The difficulty is overcome by some conventional formality being resorted to, and possession being held to be transferred by that. Thus, in India, when an estate is sold by a court, a certificate of sale is granted to the purchaser, and from that moment the *right* vests in him. The transfer of possession is, however, not yet accomplished. That is carried out 'by affixing a copy of the certificate of sale in some conspicuous place in the property, and proclaiming to the occupant by beat of drum, or such other mode as

may be customary, at some convenient place, that the interest of the judgment-debtor has been transferred to the purchaser.'

This enables us to understand what is meant by transfer of possession as regards the class of commodities represented by shootings and fishings.

Rights are creations of the law, and the law decides the circumstances in which, and the time at which, a right is held to pass from one person to another. A person transfers a right by complying with the provisions of the law in this respect.

The word 'credit' is used only with reference to agreements to pay money ; and, as will be seen hereafter, means the interest of the payee in the agreement. It is usually transferred by giving possession of the document in which the promise to pay is recorded.

There remain monopolies. These are of two kinds : those in which the holder has a patent or right to the monopoly, and those in which he has not. In the latter case the seller promises or agrees not to interfere with the enjoyment of the purchaser. The buyer of a trade secret, such as a recipe for manufacturing a quack medicine for which no patent has been taken out, has no

exclusive right to the use or possession of it, and must do his best to guard the secret ; but the seller agrees neither to use it himself nor to divulge it to anyone else. So the doctor who buys a practice acquires a kind of *quasi* monopoly, or an imperfect monopoly, but he gets no right to it, for he cannot compel the patients to come to him. Here, also, the seller puts him as far as possible in possession of the actual practice, and further agrees not to set up business himself within a certain distance. The same remarks apply also to the transfer of what is called the good-will of a business.

The possession of a commodity, then, means, in these cases, simply the power of utilising it, and a commodity is transferred by one party to another when the possession passes from the former to the latter ; in other words, when the former divests himself of, and the latter acquires, the power of utilising the commodity.

The conceptions of transfer and possession put forward above are only partial ; and although we cannot discuss them fully here, we may indicate the nature of the difficulty which arises when we have to extend them to other immaterial commodities. In these cases, what passes from the one party to the other by exchange, or gift, or

otherwise, is the power of deriving utility in the future ; but in other cases, the recipient gets not this, but actual enjoyment, advantage, or utility in the present. This is so not only where labour is concerned, but where labour is assisted by wealth, and sometimes even where wealth alone is concerned. The man who employs an Alpine guide, who is conveyed as passenger in a railway train, a steamboat, an omnibus, a tramcar, or a cab, who is present at a theatrical performance, a concert, or a picture exhibition, or who hires a horse or a boat, gets actual benefit or utility in return for his money, but no power of utilising in the future, and nothing that he can pass on to any one else. These cases, in the aggregate, form far too important a part of the industrial mechanism to be either excluded from consideration altogether or treated as exceptional, and we have, therefore, no alternative but to modify our ideas of transfer, possession, and commodity so as to include them.

Exchange may, therefore, be defined as the transfer of one or more commodities in return for another or others.

Mr. Macleod defines exchange as follows. ' Exchange is where quantities of a like nature are exchanged : as commodities for commodities,

or money and credit for money and credit.' Here commodity is used in a narrower sense than that in which it is employed above, and sale is regarded as distinct from, and not as a species of, exchange. The question whether exchange should be restricted to transfers of this kind is not one of great importance, but we believe that our definition is more in accordance with popular usage, and it denotes an idea which we have frequent occasion to make reference to, whereas we are not aware that the technical meaning assigned to the word by Mr. Macleod is required for the discussion of any of the problems of Economics.

The most immediate, and, from our point of view, the most important result of exchange is to establish a market so that prices are the same for all. The term is thus defined in Marshall's '*Economics of Industry*': 'A market for a commodity is a place where there is such competition among buyers and also among sellers that the commodity cannot have two different prices at the same time.' The consequences of this will be explained more fully in the chapter on Value.

CHAPTER V

WEALTH

THE procedure laid down in the second chapter requires us to form, in the first instance, a list of all the things to which the name wealth is even occasionally applied ; but the result would only show that we were able to discover only three classes having important qualities in common, namely, material wealth, the wider class, property, having the same attributes with the single exception of materiality, and the still wider class of commodities, arrived at by an extension of the idea of transfer. We shall, therefore, proceed at once to analyse and define the first of these, and shall discuss in a future chapter the propriety of applying these names to the three classes.

As examples of the two opposed or contrasted classes we may take the following :

Wealth :—I. Food, clothing, buildings, household furniture and ornaments, pictures, gold, silver,

jewellery, minerals, tools and implements, factories, ships, railways, canals, harbours, mines, land, &c.

II. Public parks, public buildings, the contents of public buildings, such as the British Museum, the National Gallery, &c., public streets, public roads, &c.

Opposed or Contrasted Notion :—III. Waste products of industry, sand or salt water at the sea-shore, ice in the Polar Seas, snow in winter, water, air, a shower of rain, a ship sunk in mid-ocean, undiscovered mines, *feræ naturæ*, human beings in a free country, &c.

Now the most striking general characteristic of the first two groups as compared with the third is that labour is associated with the former, and absence of labour with the latter; and at first sight, therefore, we should draw what appears to be the obvious inference that labour ought to be made the basis of our definition. This reasoning becomes much strengthened when such a case as a canal or artificial dock is compared with a navigable river or natural harbour; for most people would reckon the former but not the latter as wealth, *e.g.*, a statistician would include in his list of national capital the East India Docks, but not the adjoining Thames. In addition to

this there is the consideration that, after all, the practical questions we have to deal with are those relating to labour and capital, and to the wealth produced by them which is capable of being increased, and not to the exceptional cases of wealth obtained accidentally and without labour. It was probably the perception of these facts which led most of the earlier writers on Economics, although they did not actually frame any definition, to frequently write as though they had done so, and had based it on labour.

On the other hand, however, there are exceptions to this rule. To the case of gold or jewels discovered by chance it might be objected that only by systematic labour are these obtained in any quantity, but there remains the case of land, which can scarcely be said to be the produce of labour, and hence, no doubt, the prominence given to it by the earlier economists, and the statement that wealth is the produce of *land*, labour, and capital. In the second group also there are exceptions, and these would be sufficient to show us, if we had failed to perceive it sooner, that labour does not necessarily produce wealth ; and that if it does so usually, that is because the labourer has sufficient intelligence to make those things which people want and

which they have not enough of. The labour of a child in building castles of sand on the sea-shore, of a football player, or of those who row in a boat-race, produces nothing, and even the labour of a workman when he is a beginner frequently only spoils material. Moreover, the value of the thing produced is not proportionate to the labour bestowed, and the same effort may produce both wealth and waste products which are worthless. Thus this obvious classification of wealth as things produced by labour, and of not-wealth as things not produced by labour, proves on examination to be defective; and just as the Linnæan method of classifying plants according to their external characteristics had to give way to another and more far-reaching system founded on structure, so must this give way to one based on the structural ideas of supply and demand.

In order to arrive at a sound conclusion we must scrutinise each case separately.

Waste products of industry are classed as not-wealth. They are produced in the ordinary course of manufacture, and are not only useless but sometimes even troublesome to get rid of. It frequently happens, however, as in gas-making, that some use is found for them, and they then

acquire value and become wealth. That is to say, as long as the thing is useless it is not wealth, but when a use is found for it, it becomes wealth ; and, as the conditions are all the same with this exception, we may infer that usefulness or utility is an essential characteristic of wealth. An examination of the first two groups confirms this, for everything in them possesses this quality.

The next examples of things which are not wealth are sand or salt water at the sea-shore, ice in the Polar Seas, snow in winter, water, and air. Sand can usually be obtained for nothing at a sea beach, but something will be given for it a little way inland. So something may be obtained for sea water in London. Ice in the Polar Seas is not wealth, but it commands a price in the London market. In these three cases the place in which the thing is determines whether it is wealth. Snow in winter is valueless though not wholly useless, for it is sometimes employed by fishmongers to preserve their fish, but in summer at the same place it is much more useful, and is now valuable. Water for drinking can frequently be obtained for nothing, and is not then held to be wealth. Air, like water, is a necessary of life, but, unlike it, is never looked upon as wealth. If we consider these cases in the

light of the Law of Consumption, we see that though the things all possess utility, they cease to be regarded as wealth when they are present in such quantity as to more than satisfy everybody. We may conclude, therefore, that limitation in quantity is also a necessary attribute, and, as before, an examination of the first two groups confirms this view.

In a shower of rain we have obviously something quite different. In time of drought it may be of the utmost utility and may be deficient in quantity, and yet it is not regarded as wealth. Water in an irrigation canal, however, is so regarded, and the difference appears to lie in the fact that in the latter case the possession can be transferred, while in the former it cannot. A ship sunk in mid-ocean points to the same conclusion, for, when it sinks, the possession, the power of using it, of making it yield up its utility, vanishes, and can no longer be transferred. Undiscovered mines illustrate this truth from the opposite side, for there the possession or power of using has not yet come into existence. So wild animals uncaught are for the same reason excluded from the category of wealth. The last case, human beings in a free country, presents some new features. In a state like ancient Rome the slaves are wealth

and the freemen are not ; and here it is the law which makes the distinction, and permits the one class and not the other to be transferred. Thus we arrive at the conclusion that it is not the possibility but the fact of transfer which makes the difference.

When, however, we now turn to the second group, we are met by a difficulty. Are public streets and public roads, in fact, transferable? Individuals do not adjust their expenditure in this direction according to their needs and wants. Here we have a new idea, that of joint possession. A corporation may own property, and buy and sell, and so the nation in its corporate capacity owns land and buildings and material wealth in other forms. Moreover, as it adjusts its expenditure, *e.g.*, by buying more or less land for a road according as it wants a wide or a narrow one, the idea of relative final utility or value becomes applicable, and, as in other cases, this value is measured by the price. No doubt this view of wealth is somewhat different from that which we should get by looking solely to the industrial part of society. If all the wealth were owned by the State, we should have to change our conceptions entirely, but when this is only partly the case, and the Government, on behalf of the nation,

buys and sells in the open market like a private individual, we are able to frame one conception and one definition, so as to include all the cases.

We have now discovered three attributes, each of which is present in every individual of the first group, and one or other of which is wanting in every individual of the second, and we have thus complied with the conditions laid down in the second chapter. This gives the following definition : 'Wealth means and includes all transferable material things which possess utility and of which the quantity is limited.'

It is to be observed that the definition is defective in one respect, that it does not specify the limitation in quantity which will prevent wealth from passing into the class of things not wealth. If the quantity is so great that the final utility is zero, the thing ceases to be wealth, and the definition might have run 'which possess utility, and of which the quantity is so limited that the final utility is positive.' But, although we should have gained in precision, we should have lost touch with popular language by introducing technical terms ; and in Economics, more than in any other science, it is practically important that the definitions and terms used should be easily intelligible to the outside public.

The definition of commodity cannot be discussed until we have analysed the nature of credit, but as it is arrived at by simply dropping the qualification 'material' from that of wealth, it may be stated here. It is as follows : 'Commodity means and includes all transferable things which possess utility, and of which the quantity is limited.'

'Thing' means whatever exists, or is conceived to exist, as a separate entity.¹

In the table at the beginning of Chapter III. a classification of commodities is given, and from it the reader can see what it is we exclude by restricting the term wealth to material things. Of the things excluded, the class the inclusion of which as wealth would probably find the largest number of supporters is the first, that represented by shootings, fishings, &c. If we included these, and no others, we should have to regard material things as made up of aggregates of utilities similar to shootings and fishings. Thus, if a mountain were used for three purposes, shooting, grazing, and quarrying, these three would be held, when taken together, to amount to the material thing, the mountain. It is possible that this is the more logical view to take, but it obviously leads to

¹ Annandale's Dictionary.

time-honoured difficulties as to the meaning of material. The division of things into material and not material is one that is popularly recognised and popularly believed in, and it is not advisable to depart from it unless some real advantage is to be gained.

Things are not all transferable with equal ease, for example a book may be purchased with less trouble than a landed estate ; and it is conceivable that land might rise in value if the legal obstacles to its transfer were diminished. In that case, however, just as when an import tax is reduced, there is an increased supply in the market at the same price to the buyer as before, and we regard the alteration as taking place, therefore, in the supply or quantity. Thus the two attributes of materiality and transferability may be looked upon as constants, that is, as qualities which are either present or absent, but which do not vary in amount, while the other two, quantity and utility, are variables, or are present to a greater or less degree. These may vary together or separately, and in the same or in opposite directions. If, now, we look for a phrase to express the combined or conjoint result of both variations—or, to borrow a metaphor from mechanics, the resultant of the two forces—

we find it in 'final utility.' All the transferable things in the first group have final utility, none of those in the second have it ; and, if one of those in the first group ceases to have this quality, it passes into the second ; and if one of those in the second acquires this quality, it passes into the first.

In the last sentence we might substitute the word 'value' for 'final utility,' and the statement would still hold good ; and hence we see that, in one of its senses, value is very closely allied to, if not actually identical with, final utility.

Mr. Macleod defines wealth as 'whatever has a power of purchasing.' The objections to this are, (1) that by confusing together wealth, value, and exchange, it renders a distinct conception of any one of the three impossible ; (2) that it includes immaterial commodities ; (3) that it does not state the fundamental attributes of wealth, and, therefore, gives us no conception of what wealth is, but merely furnishes a means of distinguishing it when it is met with. As to the two first of these objections, however, the reader must suspend judgment until he has perused the chapters on Value and Commodities.

CHAPTER VI

VALUE

As already observed, any point in which a number of objects agree may be called an attribute or quality, and any quality or set of qualities may be made the basis of a classification. A class is consequently defined by an enumeration either of all the different qualities common to each of the individuals comprised in it, or, where some may be deduced from or are implied in others, of those which are fundamental. In the case of wealth we cited four—materiality, transferability, limitation in quantity, and utility; but these include others, for if a thing can be transferred it can be exchanged and it can be appropriated, and whatever possesses the three qualities of transferability, limitation in quantity, and utility, is generally desired and has a power of purchasing. On the other hand, when we wish to ascertain the precise meaning of a noun denoting a quality we must examine not merely the manner in which

the word is used, but all the points of agreement of the things composing the class to which it is applied, for some one or combination of these it must denote. This, therefore, is the procedure which we must follow in defining value.

When we begin to classify things into those to which the term is applied and those to which it is not, we find that we are only going once more over the ground covered in the last chapter. Confining ourselves for the present to things which are material, we see that it can be used only with reference to such as are transferable; *e.g.*, it is not correct to say that the Gulf Stream or the Thames is of great value to England, the meaning is, that they are of great utility, and utility is the word which should be employed. All material things, however, which are transferable may be properly described as either valuable or valueless, and the former term is applied to such as are wealth, the latter to such as are not wealth. It follows from this that value does not refer exclusively either to utility or to limitation in quantity, for either quality alone may be present in things that are valueless, and we may infer, therefore, that it denotes some quality resulting from the combination of the two. This may be the esteem in which the things are held,

their final utility, or their power of purchasing. As explained in the third chapter, value is popularly used to denote each of those three qualities; and, therefore, if we are to give it the precision of a scientific term, we must agree to confine it to one of the three, and must determine which one that ought to be.

Economists have tried times without number to give a clear conception of value by identifying it with purchasing power, and they have failed. We propose to identify it with final utility, and to regard it as measured by the purchasing power or price. We hope by this means to disentangle exchange from the other ideas of Economics, and to show their mutual relations in a manner simple and easily intelligible. The reader must judge for himself, when he has perused the whole analysis, whether we have succeeded in doing so. As regards conformity to the received meaning of the word, we believe that the popular mind has never wholly accepted the conception of value as simple purchasing power, but has always had a lurking sense of something behind—that the purchasing power is not wholly arbitrary, but stands for something real in the background. This appears to be implied in the saying, ‘The value of the thing is what it will bring,’ which is

not a popular attempt at definition, but a real proposition, meaning that what a thing will bring ought in all cases to be taken as the test or measure of its value. If this be so, then the definition we propose seems to be in exact accordance with the popular notion of what the word means.

Another argument in favour of the course adopted by us, though one of much less weight, is, that there is already a word in established use signifying purchasing power, namely, 'price,' and it is, therefore, a waste of good material to denote the same idea by the word 'value.' Economists who identify value with purchasing power practically define it as relative price, and they only increase the confusion by failing to recognise that they have done so.

This conception of value, however, is strictly applicable only to divisible commodities, and we shall, therefore, first examine it with reference to them, and shall then consider the real and apparent exceptions to it.

A person's income may be considered as divided into two portions, one of which is saved while the other is devoted to present expenditure, and it is with the latter alone that we are concerned in the present chapter. The most important proposition relating to it is that, if divisible

commodities alone are considered, the expenditure on each will be so graduated that its final utility will be exactly proportional to its price. A rigorous proof of this proposition is given by Professor Jevons in his 'Theory of Political Economy.' He states it as follows: 'The ratio of exchange of any two commodities will be the reciprocal of the ratio of the final degrees of utility of the quantities of commodity available for consumption after the exchange is completed.' For practical purposes, however, perhaps the following will suffice.

Let us suppose that a part of a man's income is spent in the purchase of two commodities, say butter at ninepence the pound and bread at sixpence for the four-pound loaf. Then one penny will purchase either one-ninth of a pound of butter or two-thirds of a pound of bread. At first, perhaps, only bread will be bought, but as, by the Law of Consumption, every additional pennyworth will yield less utility than the preceding, there will come a time when butter will be preferred; and finally, the quantities purchased will be such that nothing would be gained by the substitution of a pennyworth of bread for a pennyworth of butter, or *vice versa*—that is to say, the utility of the last pennyworths will be as

nearly equal as may be. To make this proof rigorous we should have to show that when the increments of one commodity are made indefinitely small, the ratio which the utility of one increment bears to that of the increment next following is ultimately one of equality, and that ultimately, therefore, the last increments of the two commodities are of equal utility ; but the ordinary reader will probably be content to assume that for practical purposes the utility of the last pennyworth of bread may be taken as equal to that of the last pennyworth of butter. In that case, however, we see that the utility of one-ninth of a pound of butter is equal to that of two-thirds of a pound of bread ; or, in other words, that the final utility of butter is to that of bread as six is to one, and the price of butter is to that of bread as nine to one and a half (for three half-pence is the price of one pound of bread), that is, as six is to one. The final utilities of the commodities purchased are, therefore, proportional to their prices.

Thus the picture presented to us is that of a society in which each individual spends his income on a large number of different commodities, of each of which he may purchase as small a quantity as he pleases ; and as he purchases more

and more of each, its final utility diminishes, and ultimately his expenditure is so nicely graduated that the utility obtained from the expenditure of the last penny in each direction is equal. From this it follows, by the reasoning in the last paragraph, that the final utility of each commodity is proportional to its price.

Thus to each person the final utility is proportional to the price, and, as the price is the same for all, it follows that not the absolute but the relative final utilities are also the same for all. Two persons may derive different degrees of absolute utility or pleasure from the same commodities, but if the final utility of the one commodity is double that of the other in the case of the first person, it will be so in the case of the second. The value of a thing is not its absolute final utility, not the actual amount of benefit or pleasure derived from the last increment of it, but the final utility as compared with that of other things; or, to illustrate the idea by the diagram given in a former chapter, the value denotes not the absolute height of the perpendicular from the curve on the line below it, but the height of this line as compared with that of other similar lines. Thus the value of a commodity may be increased or diminished, although there is no alteration in

its final utility by changes in the final utilities of other commodities.

It is, then, the relative final utility with which alone we are concerned, and which we denote by the word value ; and we see that it corresponds to, or is measured by, the price.

As the value of a thing is its final utility relative to, or compared with, that of other things, the full statement of it requires that a complete list of them all should be drawn up. If any number of persons drew up such lists, showing the order in which they value the things, this would be the same in each, for the things would be placed in the order of their prices.

The utility of a thing to a person is the good he derives from it; but he cannot tell what that will be until he consumes it. In the argument above we have supposed that consumption and purchase went on simultaneously, and that the estimate of the utility was constantly corrected and corresponded to the reality. This, however, is not always so ; and in that case what controls a man's action is not the actual final utility, which may be unknown, but the estimated final utility. Thus the three meanings of value are esteem, estimated final utility, and purchasing power. The distinction becomes of

importance when time is taken into account, for a change of value may arise not only from an alteration in the thing itself, but from a difference in the esteem in which it is held. Thus the newspapers report two or three deaths by poisoning from eating tinned provisions, and, although the fatalities may be due to some extraordinary accident which is more likely to happen to ordinary provisions than to such as are tinned, the esteem in which they are held—their estimated utility—is lessened, and their value falls. When we come to consider the chapter on Capital it will be seen that the point is one of real importance.

The definition of value which we propose, then, is as follows: 'The term "value" is strictly applicable only to transferable things which possess utility, and of which the quantity is limited; it denotes their estimated relative final utility, and it is measured by their price or purchasing power.'

We shall now proceed to explain the exact relation between exchange and the idea of value.

In the first place exchange renders a uniform conception of relative value possible. If there were no exchange, the final utility of a commodity to any one would depend on the quantity he happened to have of it, and the relative final

utilities would be different in the eyes of each person. Exchange, by establishing a market and uniform prices, introduces order into chaos. As though a magic wand were waved, there is a redistribution of commodities, and now, if one commodity is twice as valuable as another in the eyes of one, it is so in the eyes of all. What the actual pleasure derived in different cases is we cannot tell, but it is enough for our purpose to know that if a rich and a poor man each purchase two commodities, say bread and beef, then to each the final utility of the former will be to that of the latter as the price of bread is to that of beef.

The second service which exchange renders to the idea of value is the same as that which the balance renders to the idea of weight ; it lets us know, not what value is, but how much of it there is in different things.

Professor Jevons, quoting De Morgan, says : 'As to some magnitudes, the clear idea of measurement comes soon, in the case of length, for example. But let us take a more difficult one, and trace the steps by which we acquire and fix the idea—say, *weight*. What weight is we need not know. . . . We know it is a magnitude before we give it a name ; any child can discover the *more* . .

that there is in a bullet, and the less that there is in a cork of twice its size. Had it not been for the simple contrivance of the balance, which we are well assured (how, it matters not here) enables us to poise equal weights against one another, that is, to detect equality and inequality, and thence to ascertain how many times the greater contains the less, we might not to this day have had much clearer ideas on the subject of weight, as a magnitude, than we have on those of talent, prudence, or self-denial, looked at in the same light. All who are ever so little of geometers will remember the time when their notions of an angle, as a magnitude, were as vague as, perhaps more so than, those of a moral quality ; and they will also remember the steps by which this vagueness became clearness and precision.'

If we have two balls of the same substance we can tell readily which is heavier, but if both the substance and the size vary, so that the smaller is of the heavier material, our ideas necessarily become more vague, and this vagueness increases still further when the things are wholly different in kind, until we employ the balance. And so it is with value. If we take two things equally useful and not very dissimilar in kind, but one of which is much more plentiful than the other, we

can probably tell at once which has the greater value ; and so if they are equally plentiful, but one is much more useful than the other. But when these qualities vary in opposite directions, and when the things grow more and more dissimilar in kind, our ideas grow more and more hopelessly vague until we employ the balance, which is exchange.

Thus exchange determines the values of things in the sense of letting us know what they are, that is, it enables us to measure value ; and to confound together the two ideas of value and exchange is precisely as if one were to jumble up the idea of weight with that of the steelyard. It is even conceivable that we might have some other means of measuring value than exchange. If there were a community in which each man had an equal access to each kind of raw material, had an equal aptitude for labour, and supplied himself with whatever he wanted, there might be a uniform idea of value, and the value of anything would be measured by the labour necessary to acquire it. In this connection it may be noticed that exchange weighs value against value, purchasing power against purchasing power, and the confusion of ideas which describes the value or purchasing power of a thing as the *quantity* of

other things which it will purchase arises from a failure to apprehend this fact.

It may be noted, also, that exchange so distributes commodities as to enable the community to obtain the maximum utility from them which the existing distribution of property admits of, for it was shown that each individual spends his money in such a way that nothing would be gained if he bought more of one commodity and less of another, in other words, so that he obtains the maximum utility possible from it; and as this is true of each individual it is true of the community as a whole.

We must now examine the real and apparent exceptions to the identity of the three popular meanings of the word 'value.'

The three meanings are, as we have seen, the final utility, the desire for the thing due to its final utility, and, as a result of the action taken to obtain it prompted by this desire, its purchasing power. The first discrepancy arises from the fact that, as utility is defined by Bentham, we must regard that thing as having the greater utility which yields the greater surplus of happiness, whereas men frequently have not their inclinations sufficiently under control to subordinate the present to the future. This arises when there

is a conflict of motives, and a present pleasure is balanced against a future pain, or the welfare of a part of the body is opposed to that of the whole. The general rule is that pleasure denotes what is good for us and pain what is bad for us, but in the cases referred to these monitors are apt to lead us astray. My physician, speaking on behalf of my throat or my ankle, advises me to stay indoors, but the rest of my body craves for exercise, and I go out. The fascination of skating is so great, that I utterly exhaust myself, oblivious of the fact that I have a considerable distance to walk before I reach home ; or the attractions of a lobster salad make me forget the weakness of my digestion. These remarks apply with special force to all kinds of nerve drugs. In these cases we are able to set up another standard of goodness or badness apart from the conduct of the person concerned. Utility as above defined is, therefore, not always identical with the quality which actually influences the will ; but it would only create confusion to alter the definition or to invent another name, and it is better to treat these cases, which, after all, are few in number, as exceptional. We simply take action as the criterion of belief in these as well as in other cases.

The next and most important exception arises

from the fact that commodities are not sufficiently divisible. This acts as an impediment to the perfect adjustment of expenditure in different directions. We have seen, however, that the difficulty is almost entirely overcome by a cheaper or dearer quality being chosen, by the wear and tear being spread over a longer or shorter period, and by hiring.

Another case is the following. The owner of a horse, a dog, or a house may come from association to have such a liking for it that he would not sell it for much above its market value, that is, its value to other people. If the thing were divisible, he would increase his consumption and reduce the final utility, but here that is not possible. The popular view of this exceptional case is expressed by the saying above quoted, 'the value of a thing is what it will bring.'

A further apparent exception is furnished by the conduct of consumers in not gradually increasing their consumption when the price falls, and in sometimes discontinuing it altogether when the price rises. The objection, however, is not to the identity of the meanings of value, but to the truth of the Law of Consumption. As regards the adjustment of consumption to price not being continuous, we must admit the existence of a

species of friction, due partly to the indolence of men, partly to the fact that they are mostly wise enough to devote their attention to more important matters. When a large population is considered, however, the adjustment, though it may be incomplete, will be continuous. The sudden cessation of consumption has probably another cause. The Law of Consumption, both as stated and as demonstrated, applies only to increase of consumption, and the supposition tacitly made, that if the supply be decreased the curve will simply be retraced, is not strictly true. We know that the diminution of a pleasure, instead of resulting in less pleasure, sometimes causes actual pain, and it is, therefore, quite conceivable that the pain resulting from a reduction in the quantity may detract so much from the pleasure of that which remains that people may prefer to forego for a time the consumption of the commodity altogether. Another consideration worthy of notice is that, in most cases, the curve of utility probably slightly rises at first. When any organ is put to its proper use there is a rush of blood to the part, followed by greater activity and an *increase* of pleasure, *e.g.*, appetite comes with eating. If, then, the curve were of this form we should expect consumption to stop

abruptly when the quantity got less than a certain amount

The effect of these disturbing causes is to create discrepancies between the final utility of a thing to its possessor and its price, which indicates its final utility to other people. In all such cases we follow the maxim, 'the value of a thing is what it will bring,' and hence we have considered it necessary to state explicitly in the definition that the price is the measure of value.

There is, it may be observed, nothing peculiar in the term value being relative. As the student masters successive sciences he learns to regard as relative one term after another which he had before regarded as absolute. Thus motion seems an absolute fact. It appears at first sight as if a thing must be either at rest or in motion, and if the latter, that it must be going either fast or slow; but this is a mistake. A passenger in a railway train may be at rest as regards the passenger sitting opposite him, but in motion as regards the surrounding country; and objects in the surrounding country may be at rest as regards each other, but in motion as regards objects on the surface of another planet. If we compare the motion of an object at two different times, we may

find that it is going forward as regards one thing, backward as regards another, and is stationary as regards a third. So it is with value if we compare the value of a thing at two different times. Hence a full statement of the value of a thing requires the values of all other things to be stated, requires, in fact, that a complete price list should be drawn up. If we ask whether a thing has increased or decreased in value as compared with what it was at a former time, we must first state definitely what it is that we want to know, must define what we mean by an increase or decrease. The problem is one of great practical importance, and one solution of it is given by the method of index numbers.

This brings us to a consideration of what is meant by a 'measure' of value and a 'standard' of value.

By means of the balance we are able to compare the weights of any two things together, and to declare whether or not they are equal; but something more than this is required to give exactness and precision to the idea of weight. It is not sufficient to know that certain things, A, B, C, D, &c., weigh as much as certain other things, P, Q, R, S, &c.; in order to have a clear idea of their relative weights we must take some unit,

such as a pound or a kilogram, and express them all in terms of that. In the same way, in the case of value, we must compare the different things with some one substance, and express the result in units of that substance ; and this we do when we value things in gold and express the result in pounds sterling.

The substance with the value of which the values of other things are compared is called a Measure of Value. It is not necessarily money, but, inasmuch as ideas, like institutions, are not made, but grow, it is highly improbable that men ever did employ, or ever thought of employing, anything for this purpose until its use as money had actually caused it to become a measure of value, and had familiarised the idea of gauging values by its means. On the other hand, the variety of things which have served as money is very great, for almost every kind of movable wealth has, at one time or another, been employed for this purpose, practical considerations having induced men to prefer sometimes one thing and sometimes another, according to the circumstances in which they were placed.

A standard of value means a measure for comparing values at different times.

At first sight the quest for a standard seems

to resolve itself into a search for a substance of which the final utility remains unaltered, and the chief difficulty appears to arise from the fact that new uses are found for the substance chosen, so that its curve of utility alters, or that there is a change in its quantity, or that the population, the number of people among whom it has to be divided, increases. There is, however, a more radical objection than that. The quest assumes that we can speak of the final utility of a thing without reference to other things, or, in other words, of its absolute final utility ; but when we examine this expression closely, we find it to be meaningless. We can understand what is meant by the relative final utility of a thing, because the relative final utility is the same to all, but the absolute final utility, that is, the actual pleasure or benefit derived from the last increment of it, is different in the case of each person ; and, therefore, the phrase is meaningless, unless we qualify it by specifying the person who consumes the last increment.

Adam Smith thought that labour furnished a standard, because, as he said, the day's labour is always of the same value to the labourer. There are obvious difficulties in the way of comparing labour at different times, but, putting these aside,

we may examine the essential idea involved. The Law of Labour lays down that, after a time, the pain of labour increases ; so that if a man has been working, say, six hours, he will find the work more irksome in the seventh hour, still more so in the eighth, and so on. This pain, moreover, will be independent of whether he is rich or poor. Now, we may weigh pleasures, not only against each other, but against pain, two pleasures which will exactly counterbalance the same pain being regarded as equal. If, then, we suppose wages to be paid in grain, and find that a labourer, after working eight hours, cannot be induced to work for a ninth hour for less than double the amount of grain that would have induced a similar labourer to do so fifty years ago, can we say that the value of grain is only half what it was? Obviously not. It is conceivable that if the labour had been paid in anything else than grain, he would have got exactly twice as much as before ; in other words, that the value of labour had increased while the relative values of other things had remained the same. In short, the method gives us no clue to the relative final utilities of things, and is, in fact, based on the error pointed out in the last paragraph, that a thing has an

absolute final utility, and that its value depends on that.

As already observed, the only way to deal with the problem is, first of all, to state distinctly what it is we want to know. For the full statement of the value of a thing at one time we should require a complete price list to be drawn out, and, for the value at two different times, we should require two such lists. If only a short interval had elapsed, and if there had been any marked alteration in the demand for, or the supply of, the article in question, there would be a corresponding alteration in its value as compared with that of all, or nearly all, the other articles in the lists, and no one would hesitate to say that its value was greater or less than before, as the case might be. If, however, these conditions did not hold, we should find that the value had increased as compared with that of some things, and decreased as compared with that of others, and it would be necessary to define what, in such circumstances, we meant by an increase or a decrease of value.

One obvious answer to the question is, that a thing should be held to have increased or decreased in value if its value has risen or fallen as compared with the average value of other

things. Here again, however, we are met by the difficulty that different meanings may be assigned to the expression 'average value.' A practical solution of the problem is given by the method of index numbers, which is thus described in paragraph 47 of the Final Report of the Royal Commission on Gold and Silver : ' Certain articles are selected for the purpose of comparison ; the price of each at a given date is represented by a standard number—say, 100 ; the variations in price in each subsequent year are noted, and a proportionate addition or subtraction from the standard number is made. By adding together the numbers so obtained, a general view of the rise or fall of prices is obtained.' In selecting the articles for comparison, an attempt is usually made to assign to each a position roughly approximate to its commercial importance ; thus, to give cotton its due place, several kinds of merchandise made from it might be included. By using the index number arrived at in this way as a standard, we can assign a definite meaning to increase and decrease of value, *e.g.*, we should hold a thing to have decreased in value although its price had risen, if the index number had increased by a higher percentage.

It is to be observed that whether or not an

increase of value has taken place is a question of fact altogether independent of the causes that may have brought it about. Yet so great is the confusion prevailing over everything connected with this part of the subject, that it is not uncommon to see the statement that there has been an appreciation of the value of gold denied, on the ground that the increase in its purchasing power is due to causes affecting commodities generally. Here at first sight it might be supposed that there was merely a dispute as to the meaning of the word 'appreciation,' but it is clear from the arguments used, that those who deny that the value of gold has appreciated in the case stated do so because they look upon that value as independent of variations in the value of other things.

Most writers, on arriving at the conclusion that an ideally perfect standard is unattainable, thereupon drop the subject as though the pursuit were purely chimerical, and entitled to no more respect than the search for the philosopher's stone or the *elixir vitæ*. But it would be just as reasonable for an astronomer to abandon his labour because, when constructing his instruments, he is unable to find the true centre of a circle. Men must use something as a standard, and if they cannot get a perfect one, they will take an imperfect one.

In every transaction involving a future payment the amount to be paid must be settled somehow, and in practice it is settled by stating the quantity of gold. Gold is then used as a standard. For the transaction to be a fair one, what has to be fixed is the quantity of purchasing power, the value. In short date transactions the value of gold is so nearly constant that the distinction is scarcely apparent and is of little importance ; but when the payments extend over long periods, an alteration of the value of the standard may introduce a new element into the contract, involving gain to the one party and loss to the other, which was not foreseen at the time the contract was entered into, and which, if it could have been foreseen, would have been provided against.

When we attempt to discuss this question fully we find ourselves at once face to face with two of the most difficult problems of the science. It is a fact established by the method of index numbers that the purchasing power of gold varies greatly from time to time, and, therefore, before venturing to suggest expedients to counteract this variation, we must first make some sort of inquiry into the causes of it. Thus, at the outset, we encounter these two problems, first, What is the cause, or what are the causes, of the recurrence at more or

less regular intervals of severe and wide-spread depressions of trade? Second, What is the connection between the quantity of gold and prices?

Without, however, attempting at present to grapple with these problems, and admitting, therefore, that we do not go to the root of the matter, we may state two results which we venture to regard as well established: (1) that with a double standard the variations will be less violent than with a single one, and (2) that the method of index numbers enables us to tell with very considerable accuracy whether any given commodity has risen or fallen in value as regards the average of other commodities.

The first theory was demonstrated by Professor Jevons in his monograph on 'Money.' If the variations are in opposite directions, the resultant variation will represent only their difference; if in the same, it will be greater than the less, but less than the greater of them. Of course with a triple standard the stability would be still greater, and so on.

Variations in the standard may, as already stated, arise from causes directly affecting it, or from causes directly affecting commodities generally. Both difficulties are overcome by taking a standard which, in the first place, is multiple, and, in the

second place, is composed of quantities of the commodities themselves, which quantities are roughly proportionate to their importance ; that is, by the method of index numbers already explained.

As this multiple standard might be thought to completely solve the difficulty, and to furnish a perfect basis for long term contracts, we may point out what appears to us to be the chief objection to it from this point of view. This is, that the prices dealt with are wholesale, and that retail prices, by which the personal expenditure of every individual is determined, do not vary in the same way. It is generally supposed, indeed, that an adjustment ultimately takes place, but we doubt very much whether this is so ; we believe that a long continued fall in wholesale prices would be followed by a partial adjustment of prices, and an additional increase of retail shops beyond the number actually required.

The important terms 'supply' and 'demand' have yet to be defined.

As it is the rate of supply and the rate of consumption that we deal with, some unit of time must always be either stated or implied when the words 'supply' and 'demand' are used. The primary signification of the latter term is a state of the

mind, but it is now used by economists to denote the quantity demanded. The words may, therefore, be defined as follows : ' Supply and Demand mean respectively the quantity which would be sold and the quantity which would be bought at a price and at a rate, such as daily, monthly, or yearly, which are either stated or understood.' When it is said that the price depends on the supply and the demand, the reference is not to the price at any one point of the curve of price, but to the whole curve.

We now come to the definition of value as a ratio. Some light may be thrown on it by an examination of the definition of ' specific gravity,' the only other similar one with which we are acquainted. The following extract on the subject is from Ganot's ' Physics ' : ' If we consider any body or portion of matter, and if we conceive it to be divided into any number of parts having equal volumes, then, if the masses of these parts are equal, in whatever way the division be conceived as taking place, that body is one of *uniform density*. The *density* of such a body is the mass of the *unit of volume*. . . . If, now, we take the density of distilled water at 4° C. to be unity, the relative density of any other substance is the ratio which the mass of any given volume of that

substance at that temperature bears to the mass of an equal volume of water. Thus it is found that the mass of any volume of platinum is 22·069 times that of an equal volume of water, consequently the relative density of platinum is 22·069. . . . The relative density of a substance is generally called its *specific gravity*.' Thus, specific gravity being a ratio, is always a whole number or a fraction, and, if value were a ratio, the value of a thing would likewise always be either a whole number or a fraction.

It is obvious that any quality may be treated in this way provided we can get a standard for reference. By fixing the relative density of a new metal to water at 4° C. we fix its relative density also to all other metals for all time. Thus, although only two substances are expressly alluded to, all others are included by implication. If things always exchanged in the same ratios, in other words, if prices never varied, this method would be applicable to value, and when the price of a thing was stated, its value as regards all things would be known. As it is, however, the price may remain the same and yet the value may be very different, *e.g.*, the salary of an Anglo-Indian official is fixed in rupees, but its value alters with the rise and fall of exchange.

Of course it is possible to define value in this way as a ratio between two, and only two, things, and to use it consistently and intelligibly in this sense. The objections to this course, however, are simple and conclusive. In the first place, the conception which is thus labelled with the name 'value' is one of no importance whatsoever, and finds no place in the discussion of important economic problems; and, in the second place, whatever the popular conception of value may be, it is assuredly not that here put forward. A curious illustration of this is furnished by the fact that Professor Jevons, having accepted this conception of value as a ratio, was thenceforward unable to make any use of the word, and employed the phrase 'final degree of utility' in its place.

We have now completed the first and, perhaps, the most difficult portion of our task. We have endeavoured to show that the ideas of wealth and value are based on the simpler ideas of supply and demand; that they imply the Law of Consumption, and therefore also the Law of Supply and Demand; that the different meanings of value are substantially merely different aspects of the same quality; and that the way to get a firm grasp of the conception is to keep that identity prominently

in the foreground. In the remaining chapters we have to adapt the ideas to the complex mechanism of modern industry. As society evolves the facts change, and by slow degrees the language and the ideas adapt themselves to the facts, and to bring this process up to date we must survey the facts and the different things to which each name is applied.

CHAPTER VII

THE MONEY MARKET

It is impossible to discuss the ideas of credit, money, and capital apart from the mechanism of the money market with which they are bound up; and we shall, therefore, endeavour to give such a brief sketch of it as will serve for a basis for the examination of those ideas.

Banking in this country had its origin in the deposit for safe keeping of hoards of gold with goldsmiths, and until required by their owners these were utilised in the making of advances on loans for short periods. The goldsmiths have now grown into bankers, and all savings are deposited with them, but their business is still essentially the same, they *make advances for short periods*. It is true that the advance is actually made to one person and repaid by another, and it may also be true, as Mr. Macleod asserts, that, owing to much of the money never being actually withdrawn from the bank, advances are made by a banker

much exceeding in amount the savings deposited with him, which form the basis of his operations ; but that does not alter their essential character, they are advances and not permanent loans. They are, therefore, not available for permanent investment, that is, for investment in the form of durable wealth which goes to increase the stock of accumulated wealth of the country, and it follows from this that any addition to that stock must come out of savings, for that is the only other source from which it can come. The two things, advances and permanent expenditure, are, from a financial point of view, quite distinct, and, as a mere technical matter of accounts, would be treated differently in a statement of the national disbursements, for the one would be shown as part of the real expenditure, while the other would be entered in a separate suspense account.

Credit acts on the industrial mechanism in two distinct ways. First, it places the wealth required for production in the hands of those who are able to make the most efficient use of it. This is actually effected through the agency of the money market, the financial part of the mechanism, but might conceivably take place under a system of barter, although there were no recognised medium of exchange. Secondly, it acts as a medium of

exchange, and thus effects an economy of gold, that is, increases the amount of work which can be done with a given gold basis. A buys something from B, and pays him with an instrument of credit, with a cheque which he writes, or with a bank-note, a bill of exchange, or a promissory note which he has received from someone else; and B pays it away to C, C to D, and so on. Here we have obviously something quite different from a loan, something which may be described either as a new medium or as an economy of the old one.

As regards the effect of the money mechanism in placing capital in the hands of those who are best able to use it, we may quote the following extract from 'Lombard Street':¹ 'English trade is carried on upon borrowed capital to an extent of which few foreigners have an idea, and none of our ancestors could have conceived. In every district small traders have arisen who "discount their bills" largely, and with the capital so borrowed, harass and press upon, if they do not eradicate, the old capitalist. The new trader has obviously an immense advantage in the struggle of trade. If a merchant have 50,000*l.* all his own, to gain 10 per cent. on it he must make

¹ Mr. Bagehot's *Lombard Street*, p. 8.

5,000*l.* a year, and must charge for his goods accordingly ; but if another has only 10,000*l.*, and borrows 40,000*l.* by discounts (no extreme instance in our modern trade), he has the same capital of 50,000*l.* to use, and can sell much cheaper. If the rate at which he borrows be 5 per cent., he will have to pay 2,000*l.* a year ; and if, like the old trader, he make 5,000*l.* a year, he will still, after paying his interest, obtain 3,000*l.* a year, or 30 per cent. on his own 10,000*l.* As most merchants are content with much less than 30 per cent., he will be able, if he wishes, to forego some of that profit, lower the price of the commodity, and drive the old-fashioned trader—the man who trades on his own capital—out of the market. In modern English business, owing to the certainty of obtaining loans on discount of bills or otherwise at a moderate rate of interest, there is a steady bounty on trading with borrowed capital, and a constant discouragement to confine yourself solely or mainly to your own capital.'

A manufacturer cannot ordinarily borrow money from the bank to sink in his business, but he can get advances which will enable him to meet his current expenses, and the way he gets them is this. He manufactures, perhaps, one special kind of cotton fabric, but it does not pay

him to send agents all over the world to sell this to different retail dealers, so he sells to wholesale dealers, who each deal in a number of fabrics and transact business in different parts of the world. He receives an order for so much goods from one of them, to be delivered on a certain date, and he writes an order on the buyer to pay the price—also at a future date—and takes this order to the banker, who discounts it—that is, pays him the present value of the bill. If the bill is for 100% at three months, and the rate of discount is 4 per cent., he will get 99% for it. A bill is said to be ‘accepted’ when the person on whom it is drawn acknowledges his liability, and writes that word across it.

The greater part of the money advanced in this way appears ultimately to be paid away in the form of wages, but we have no positive evidence on the point. The manufacturer has, it is true, not only wages to pay, but the cost of raw material, of circulating capital in the form of coal, &c., rents, rates, and taxes, insurance, petty contingencies, repairs, &c. ; and some of these will be paid by cheque without anything being drawn from the bank ; but if we trace the money thus paid away, *e.g.*, to the coal miner or the municipality, we find that it chiefly goes in wages.

It would not, however, be a correct description to say that the banker advances to the labourer, through his employer, the present value of his share of the future produce, because a change in the rate of discount in the first instance affects profits and not wages.

The earliest form of saving is hoarding, and the gold hoarded or saved is withdrawn from circulation, so that, at the outset, we have the two opposed notions of gold withdrawn from circulation and gold in circulation. With the introduction of banking comes a change. At first a distinction might be drawn on the ground that the advances made are only temporarily restored to circulation ; but even this is obliterated when bills are met by bills, and money is actually drawn from the bank only for wages and current expenditure. Thus, a contrast which at first seems fundamental is evolved out of existence altogether, and all that is left of it is the fact that savings pass through the bank. They are now no longer represented by an accumulation of gold, but by debts owed to the banker and debts owed by the banker.

Savings may, therefore, leave the bank in two ways : they may be lent by the banker, or they may be withdrawn by the depositor ; and if more

leaves by one channel, less can leave by the other ; while if either channel gets blocked, there will be a congestion of gold in the bank. The loans by the banker, although all for short periods, can no longer be correctly described as temporary ; he may reduce the amount outstanding, but if he attempted to discontinue the loans altogether, or even to very largely reduce them, the whole financial mechanism, and his own institution with it, would be involved in one common ruin.

The important point to consider is, therefore, obviously not the amount of savings accumulated at any one instant of time at the banks, but the rate at which they accumulate and are expended ; not the amount in the reservoirs, but the volume of the incoming and outgoing streams. Savings arise from an excess of income over current expenditure, and they may disappear by a reversal of the process—an excess of current expenditure over income. But when we consider the national savings we may regard this exceptional case as merely diminishing the net amount saved. Apart from this, they can be diminished only by increasing the stock of accumulated wealth, by passing from a free or money form into a vested or material form. They may be employed as a medium of exchange in the purchase of a house,

or ship, or railway already in existence ; but they do not thereby cease to be savings, for there is merely an alteration of the names in the books of the bank. A portion of the capital and labour of the community may be considered as entirely occupied in the production of accumulated wealth, and the savings are expended in this production. This wealth may or may not be capital, but it is newly produced. Hence, we see that there is a close connection between capital, as the word is understood in the money market, and production.

It may be objected that wealth is of all degrees of durability, and that it is impossible to draw the line between the wealth which is to be regarded as part of the accumulated stock and that which is not. This is the difficulty of the doubtful margin. Exactly the same difficulty occurs between expenditure from savings and current expenditure, and where the line is drawn in the one case there it must be drawn in the other.

The vagueness of the expression, 'the amount of loanable capital,' will now be understood. In the first place we must have present to our minds a definite period within which the capital is to be expended. Production takes time, and the money cannot be all required for immediate expenditure.

In the next place, the money called by this name may be divided into three classes. First, it may mean savings employed as a medium of exchange, as when a company is started to purchase and carry on an established business. There is, of course, no limit to the amount of 'capital' of this kind which may be 'raised' in a year. Secondly, it may refer to the advances made by bankers, which are not available for permanent investment. Thirdly, it may denote the net national savings which are invested in accumulated wealth, and the amount of which may, therefore, be estimated by the increase to the accumulated stock.

If the expression is confined to the third class, it will be observed that there is really a limit to the amount which can be raised. Of course, where there is no efficient machinery for the concentration and utilisation of hoards the limit may be very low indeed. In India the amount which the Government can raise in the country at a reasonable rate of interest is under three crores per annum. Probably, however, a machinery might there be evolved, for, to judge by the rules in restriction of savings bank deposits, the people are willing to deposit more money than the Government is willing to hold at call. In this connection we may point out that an imprudently early

marriage may put it out of a man's power to accumulate savings, because all his income is required to bring up his children, and that this is equally true of a nation as of an individual. Hence, obviously, one reason why a nation like India cannot accumulate wealth is because early marriage is the universal custom.

In one case, that of a loan to a foreign nation, savings may be invested in the first instance in wealth which is not durable. Such a loan takes the form of increased exports, but, of course, it must nevertheless come out of savings. The merchants cannot lend the goods they produce, their expenditure must be recouped at once, or they could not carry on their business. What practically happens is, that the foreign borrower gets the command of savings here, and with them buys bills from merchants who increase their exports and draw bills on foreign buyers. The increase of exports will, however, go not necessarily to the borrowing country, but to wherever the merchants find it most advantageous to send them, and the borrowing country will get the advantage by a roundabout process.

We now come to consider the means of economising gold.

The first economy is effected by the utilisation

of hoards awaiting investment, which is the foundation of our banking system. This has already been sufficiently explained.

Next in point of simplicity, though not in point of time, is the Clearing House. The following account of its working is from Mr. Macleod :¹

‘The mode of doing business is as follows: Twice a day, early in the morning and again in the afternoon, the clerks meet in the Clearing House, and exchange their mutual claims against each other. Each bank has till a certain hour to determine whether it will honour the drafts upon it; if it does not return them before that time, it is held to have made itself liable on them to the Clearing House.

‘Each clearing bank keeps an account with the Bank of England, and the inspector of the Clearing House also keeps one. Printed lists of the clearing banks are made out for each bank, with its own name at the top, and the others are placed in a column in alphabetical order below it. On the left side of the names is a column headed “Debtors,” and on the right side a column headed “Creditors.” The clerk of the Clearing House then makes up the accounts between each bank, and the *difference* only is entered in the balance

¹ *Elements of Economics*, p. 391-392.

sheet, according as it is debtor or creditor. A balance is then struck between the debtor and creditor columns, and the paper delivered to the clerk, who takes it back to his own bank. The balance is not paid to or received from the other banks, as formerly, but it is settled with the Clearing House, which keeps an account itself with the Bank of England. The accounts are settled by means of a species of cheque appropriated to the purpose, called *transfer tickets*. They are of two colours, white and green; white when the bank has to pay a balance to the Clearing House; green when it has to receive a balance from it. By this admirable system transactions to the amount of many millions daily are transferred from one bank to another without the use of a single bank-note or coin. In 1874 credits to an amount exceeding 6,000,000,000*l.* were thus interchanged between the clearing banks.

‘In most country towns of any size a similar system of exchanges is organised, and the differences settled by a draft upon London; and in 1858 a Clearing House was organised in London for country bankers. All these institutions have the effect, as it were, of constituting all the banks in the kingdom into one vast banking institution,

and to transform the monetary business of the country into mere transfers of credit without the use of bank-notes or coin.'

The next thing to notice is the concentration of the reserves in the Bank of England. Mr. Bagehot says:¹ 'All London banks keep their principal reserve on deposit at the banking department of the Bank of England. This is by far the easiest and safest place for them to use. The Bank of England thus has the responsibility of taking care of it. The same reasons which make it desirable for a private person to keep a banker, make it also desirable for every banker, as respects his reserve, to bank with another banker if he safely can. The custody of very large sums in solid cash entails much care and some cost—every one wishes to shift these upon others if he can do so without suffering. Accordingly, the other bankers of London, having perfect confidence in the Bank of England, get that bank to keep their reserve for them. . . . All country bankers keep their reserve in London. They only retain in each country town the minimum of cash necessary to the transaction of the current business of that country town. Long experience has told them to a nicety how much

¹ *Lombard Street*, pp. 27, 30, 31.

this is, and they do not waste capital and lose profit by keeping more idle. They send the money to London, invest a part of it in securities, and keep the rest with the London bankers and the bill brokers. The habit of Scotch and Irish bankers is much the same. All their spare money is in London, and is invested as all other London money now is; and, therefore, the reserve in the banking department of the Bank of England is the banking reserve not only of the Bank of England, but of all London, and not only of all London, but of all England, Ireland, and Scotland too.'

The economy effected by the utilisation of credit as a medium of exchange has already been referred to. The banker in discounting bills may pay not money but notes. Some notes return to be changed into gold, but he finds that he is able to keep in constant circulation a large number, and he can, therefore, discount bills to a larger amount than the savings deposited with him would otherwise enable him to do. In this country restrictions have been put on the issue of notes, and, probably partly for this reason, recourse is chiefly had to another method by which the same result is brought about. When the banker discounts bills he does not pay anything

over the counter at all, but puts the amount in his books to the credit of those presenting the bills. Of course the bills are not presented until the accommodation is actually required, but then it is in many cases merely transferred by cheque to the credit of someone else; and, though the payee may deal with a different bank, yet such transactions tend to balance each other. Thus, according to Mr. Macleod, the value of the bills discounted by the banker may be several times as great as that of the basis of savings deposited with him on which he works; but we are inclined to think that this view is exaggerated. There is, however, no direct evidence on the point because of the fact brought to notice by Mr. Macleod, that such book-credits are shown in banking returns as deposits, just as though they were deposits of savings. Other instruments of credit, bills, promissory notes, &c., are also, as already stated, used as media of exchange.

Lastly, we may notice the saving effected by improved means of transport. A good example is furnished by India. The Government of India requires for working the treasuries scattered throughout its Empire a balance of from eight to nine crores of rupees; and, though it may reduce the amount by a crore, yet it then finds that it

has to make more frequent remittances from place to place, and that the increased cost of transport more than swallows up the interest saved.

When a banker finds his reserve diminishing he has only one remedy—he raises the rate of discount. This makes many transactions unprofitable which were profitable before, and, therefore, diminishes the amount of business and the number of bills presented for discount; and for the same reason it checks permanent investment. Probably, however, the remedy would prove too slow if it did not act also in another way, namely by attracting gold from other countries. This gold comes practically because a good profit can be made by employing it in discounting bills. It will not, therefore, be sent unless the rate of discount in England be higher than the rate in the country where the gold is; but every additional rise will attract gold from places further off, and thus tap new sources of supply.

In this connection we may notice that those who express astonishment at the smallness of our reserves do not put forward into sufficient prominence the fact that experience has taught us to rely on getting an additional supply of gold from the Continent whenever we want it. We have,

in fact, a further reserve there, and, after painful blundering and error, have discovered how to make use of it.

There are two great problems connected with money : the connection between the quantity of gold and prices, and the recurrence of periods of depression of trade marked by low prices.

As regards the first of these, Mr. Giffen has so clearly proved that the quantity of gold, acting through the rate of discount, ultimately controls prices, that it is a matter for surprise that this connection has not become an accepted and recognised proposition of Economics. There are four facts, namely: (1) that gold brought to this country finds its way into the reserve at the Bank of England, and that gold taken from this country comes from that reserve; (2) that the rate of interest is raised or lowered according as the reserve decreases or increases; (3) that low reserves and high rates ultimately lower prices, and that high reserves and low rates ultimately raise them; and (4) that in ordinary good times the reserves are not higher than is necessary to carry on current business and insure safety; or, in other words, that at such times prices are as high as the quantity of gold permits. The first of these facts is proved by Mr. Bagehot in his '*Lombard Street*,'

the second and third are proved statistically by Mr. Giffen, and the fourth may be verified by anyone who cares to consult the newspapers. The conclusion may be stated briefly as follows : the quantity of gold determines the upward limit to which prices can rise, and when trade is good this limit is reached. It is important to observe that the fact of the connection is clearly proved, although we may be unable to show precisely in what manner the change in the rate of discount brings about the change in prices.

The following is an explanation of the manner in which the rate of discount acts upon prices. It is of the nature of an hypothesis, but it is in accord with, and explains all the facts with which we are acquainted.

It is a well-known fact that depressions occur in trade. Many causes, such as the closing of markets by war, or the cessation of foreign loans, may cause disturbance in the course of trade, and greater or less widespread depression ; but probably the most persistently recurring is the variation in the agricultural out-turn. We shall start by stating the known symptoms of a severe depression, and shall then trace the onward course of events.

The symptoms are : Low prices, an accumu-

lation of savings at the banks, high reserves, low rates of discount, great falling off in the ship-building trade, and in the coal and iron mining industries; exports nearly stationary as regards quantity but reduced in value, complaints from capitalists that they are making no money, or are working at a loss, and large numbers of men out of work.

The ultimate object of the whole organisation of industry is final or personal consumption, and we may, therefore, direct our attention to the production of wealth, to which banking and the stock exchange are subsidiary. This is, as we have seen, of four kinds. Of these, agriculture may be put on one side, as its vicissitudes are meteorological and not commercial. Appropriation, chiefly fishing, is very much in the same position, and is comparatively unimportant. Coal and iron mining operations, more especially the latter, are largely dependent on the investment of capital, that is, on the extension of manufacture, &c.; while those engaged in Carrying can carry only what is produced by the others. We may therefore concentrate our attention on Manufacture, and on those who operate on material which is finally intended for personal consumption.

Now, although a manufacturer may go on

working his existing capital at a loss, he will not invest more capital until he sees his way to making a reasonable profit on it ; that is, he may renew his existing machinery during bad times, but he will not extend his operations. On the other hand, if profits improve, investment will be resumed.

On this point Professor Walker says :¹ ‘ In the modern organisation of industry the profits of the man of business furnish the sole motive to production. Production is not carried on because the labourer wishes it. The labourer has nothing to say about it. If he is employed, he works and earns wages ; if employment fails him, he is impotent to make a place for himself ; he holds on painfully, awaiting better times, and eating up his little substance, selling the clothes and the furniture out of his house a piece at a time. It would be difficult to imagine the labourer more passive and helpless, more dependent upon the action of others, than he is in the existing organisation of industry. In the long and painful prostration from which the country is just now, as we hope, recovering, what have the labourers done, what could they have done, to secure employment for themselves ?

¹ *Money, Trade, and Industry*, p. 88.

‘Quite as little has the possessor of capital to say as to whether production shall proceed or not. Men are not employers simply because they are capitalists, or to the extent only to which they are capitalists.’

Why, however, it may be asked, should manufacturers work at a loss? Why should they not diminish their out-turn? In the answer to this lies the solution of the whole problem. It is difficult to explain the matter clearly without the aid of mathematical symbols,¹ but we shall endeavour to do so. The answer is that, as long as the more he sells the less he loses, he will go on selling as much as he can up to the limit that his machinery will turn out. In considering this we have to divide his expenses into two parts, permanent fixed charges and variable expenses. Under the former head are interest, rent, insurance, rates, some taxes, and a considerable portion of the salaries of his staff. Under the latter are ordinary wages, cost of raw material, &c. For the sake of simplicity we may assume that the latter vary exactly as the out-turn. Now suppose, for example, that his fixed expenses amount to 10,000*l.* per annum, that his machinery will turn out 9,000 cwt. of the commodity he deals in, that the variable expenses amount to 14*l.* per cwt., and

¹ See note B.

that the selling price is 15*l.* per cwt. Here, if he manufactures his maximum out-turn, he will lose 1,000*l.* a year, but if he manufactures less, he will lose more. He might, indeed, throw up the whole business and lose all the capital he has sunk in it, but as long as he sticks to it he will make as much as he can without sinking more capital, and he will take the best price he can get. Thus it is only the variable expenses that we have to look to, and as long as these are less than the selling price he will not diminish his out-turn. Perhaps he will even go further than this in order to keep his connection together, but this is sufficient for our purpose.

We have now to consider whether there are any causes in operation tending to convert this loss into a profit, and to raise the profit to what may be called investment point. The answer is, that there are many such causes, which must sooner or later be effectual.

In the first place, there is the low rate of discount. Next, the decrease in the shipbuilding, coal, iron, and other industries will have thrown men out of work, and as the population is increasing every year, more men are growing up fit for work. This tends to lower wages, and though trades unions may strive to keep them up, they will

be only partially successful. Again, the amount of capital may have been reduced by the failure of companies or individuals whose capital has not been replaced. In time also come inventions and discoveries, which lower the cost of production and the cost of carriage, new and improved means of communication, and the opening out of new markets owing to these and other causes. Finally, we have to take into account the lower prices the manufacturer has to pay. If his raw material is iron or steel, *e.g.*, if he produces cutlery, the benefit will be immediate; and if it is an agricultural product, after a time improvement in the means of transport, and in some cases extension of the area of cultivation, will lower the price.

Thus, by the mere lapse of time, without the intervention of any unusual cause, profits will slowly recover up to investment point, and when that point is reached, or nearly reached, the condition is one of unstable equilibrium. A succession of good harvests, however, or some other cause may hasten the recovery.

If investment point is nearly reached and recovery begins, it spreads with extraordinary rapidity. There is a demand for new machinery and for coal and iron. This leads to an increased employment of labour, and an increased demand

for goods for personal consumption. Prices rise, and profits with them, and business is rapidly extended. Other trades, such as shipbuilding, soon feel the influence, and these act and react on the others, and so increase the general rise. The movement goes on with increasing force, and the longer the recovery is delayed the more rapid it will be.

We must now examine the effect of this movement on the banks. At the beginning they had large reserves and a low rate of discount, and, in addition to this, the low rates may have sent a considerable amount of gold abroad. Now, although the ratio which the superstructure of credit bears to the basis of bullion may vary at different times and places, yet at the same place, and for short periods, it may be regarded as constant; and if the bank discounts bills beyond this limit, its liabilities will increase and its reserve decrease both at the same time. The larger volume of trade and the higher prices increase both the number and the value of the bills to be discounted, and this tends to make the limit be reached; but, most of all, the withdrawal of savings for investment tells directly on the reserves. Part is taken to pay wages, and this, as the issue of small notes is restricted, is in the form of cash; part is paid away

in cheques, and these cheques are paid to the banks to meet bills at maturity, but the drawers of the bills have already taken cash from the banks for payment of wages, and this cash is not recouped.

Ultimately the rate of discount will be raised sufficiently high to check investment, but before this point is reached there may be a long period of investment of savings. When trade first recovers, profits are much higher than usual, and the greater the depression the greater the rebound, and the tendency is for investment to proceed until they are lowered

This raising of the rate of discount affects with great severity the manufacturers whose case we first considered. All the classes through whose hands the goods pass are affected by the rise in the rate in proportion as they deal in borrowed capital, and this comes with cumulative effect on the original producer. The exporter, for example, has very frequently little capital of his own, buying and selling almost simultaneously, and paying the manufacturer with money obtained from the discount of bills drawn on his foreign customers; and, therefore, when the rate rises, he cannot both buy and sell at the same prices as before. As the manufacturer does not reduce his

out-turn, no higher price will be obtained from foreign buyers, and, therefore, the manufacturer must consent to take a reduced price. It is the same with the wholesale dealer for home consumption.

The raising of the rate has, however, a more direct action on prices than this. Those who hold stocks of goods, more especially if they have to renew bills to hold on, may prefer to raise money, not by going to the bank, but by selling their goods more quickly and, therefore, more cheaply, for this may cost them less ; and thus there is a fall in the prices not only of goods, but of securities, of stocks and shares.

Moreover, many of the investments which have been begun must be carried out. New mills, perhaps, are in course of erection, and they must be completed and fitted up with machinery, and in due time this will increase the out-turn and reduce the price still further.

Thus the immediate effect of the raising of the rate is to check investment, but not always to curtail production.

The cessation of investment, however, tells immediately upon the machinery producing and the shipbuilding trades, and through them upon coal and iron.

Here we have an exact reversal of the former process, with a falling off in demand and a further fall of price ; and, as before, there is action and reaction all tending in the same direction.

Finally, there is a complete reproduction, though, perhaps, in a less intense form, of the symptoms with which we started.

Thus a severe depression tends to reproduce itself at regular intervals, and the whole cycle is an illustration of the general law laid down by Herbert Spencer, that progress is never in a straight line, but in rhythmic waves, by alternations of exaltation and depression.

It is to be observed that capital is comparatively worse off at the beginning, and labour at the end, of a depression, and that the attempt of trades unions to keep up wages apparently tends to prolong a depression, illustrating the general principle that interference with the Law of Supply and Demand works for evil and not for good.

Whether, however, this theory of commercial cycles be correct or not, the proof of the connection between the quantity of gold and prices is, as already stated, independent of it. Moreover, the facts cannot be denied, explain them how we may, that alternate periods of exaltation and depression do occur, and that during the former

prices are kept down only by the high rate of discount, or, in other words, by the scarcity of gold. In the light of this connection we shall now examine the effect of the severance of the bi-metallic link on gold and silver prices.

Bi-metallism means the system of currency in which there is free coinage of both gold and silver, and both are legal tender to any amount at a fixed ratio. If the ratio were $15\frac{1}{2} : 1$, then the silver in ten florins would be fifteen and a half times as heavy as the gold in a sovereign, and any person might take any quantity of either gold or silver to the Mint and have it coined into sovereigns or florins; and if he owed a debt of 100*l.* he might, at his option, pay 100 sovereigns or 1,000 florins. When this system is in force a large increase in the quantity of gold causes a certain amount of silver to be displaced by gold, and the purchasing power of both metals falls, but the ratio is maintained; and in like manner it is maintained if gold is displaced by silver. The result is a self-acting compensation mechanism by which variations in the one metal are in part compensated by those in the other. If the variations are in opposite directions, the resultant variation is, as Professor Jevons has shown, that due to their difference; while, if they are in the

same direction, it is less than the greater, and greater than the less of them.

To the barter theorist who looks solely to the cost of production, this delicate adjustment seems as impossible as the rings of Saturn. Its theoretical possibility is, however, now acknowledged by most economists, but practical objections are raised to it similar to those which might be raised to banking, on the ground that combinations of circumstances may be supposed in which it would break down ; which is certainly strange, as it has proved successful in practice, and the English are more noted for the practical success than for the theoretical soundness of their institutions.

The whole world was, till recently, practically bi-metallic, for the fact of some countries being so, maintained the ratio fixed throughout the rest. It is now trying the experiment of two single standards, and what the results may be, if such variations in the relative out-turn of the two metals as the present century has already witnessed should recur, it is impossible to predict. We may, however, examine how far the changes that have already taken place are in accordance with what theoretical considerations would have led us to anticipate.

The demonetisation of silver by Germany, and

the subsequent action of France and Belgium in first limiting and then stopping the coinage of silver, threw an enormous quantity of it into the market, and at the same time absorbed a large portion of the existing stock of gold. The gold area was widened, and the silver area narrowed. In these circumstances we should expect a fall in gold prices and a rise in silver prices. As a matter of fact, gold prices have fallen greatly, and silver prices have remained nearly stationary.

Many persons, however, while admitting these facts, explain them otherwise ; they deny that the fall in gold prices had anything to do with the demonetisation of silver, or rather, they deny that it was in any way due to scarcity of gold, and they ask in what way would such a scarcity show itself.

To this question the answer is simple and conclusive. A scarcity of gold would show itself in only one way, in a lowering of the upward limit to which prices could rise ; and when, at the end of the commercial cycle, the time came for prices to recover, they would be unable to do so, and the depression would be prolonged. This is exactly what occurred. Many writers have pointed out that the only thing unusual about the last depression of trade was its extraordinary duration.

The depression itself was merely a repetition of the commercial cycle, which had recurred with such unvarying regularity that Professor Jevons sought to trace a connection between it and the periodic occurrence of spots in the sun ; the new feature about it was its prolongation, and the new factor introduced into the conditions was the reduction in the available quantity of gold.

So long ago as 1885 Mr. Giffen gave this explanation, and pointed out that this was what was actually occurring. He says :¹ ' The inference would be that in the last five years the money market has been less disturbed, though it has not been free from disturbance ; but the cause of the cheapness is the abundance of capital,² which in turn is due to the inability of the money market to rally, a big reserve being never allowed to accumulate, but being dispersed in all directions by the greatly increased current demands, resulting in a temporary rise of discount rates, renewed discredit, want of confidence, and a still keener competition and lower prices. In the present year (1885), when with dull trade and low prices the reserve should be full and discount rates low, we find that with a minimum of 2 per cent. there is

¹ *Essays in Finance*, 2nd series, pp. 81, 82.

² *i.e.* Savings.

again to be a comparatively high maximum (4 per cent.) within the year. . . . But prices do not recover as they did after 1866, and they cannot recover. There is no potential reserve, and no potential stock of gold available for the demands of small change which would inevitably spring up along with a rise of prices, profits, and wages.'

We shall conclude this chapter with some remarks on the subject of monopolies.

A state of monopoly is opposed to one in which there is free competition, and a monopoly may be defined as the privilege of selling a particular class of commodities without exposure to competition. An imperfect monopoly is one in which the competition is imperfect.

The most justifiable case of the creation of a monopoly is the grant of a patent to an inventor. The system is by no means ideally perfect, for the person who reaps the benefit is not always the one who has contributed most to the result. Payment in this manner is, moreover, a costly method for society ; though it is probably the only one by which the remuneration can be made even approximately proportionate to the service rendered.

On the other hand, when an individual or a syndicate gains control over the sources of supply

and raises the price, the result is exactly the same as the imposition of a tax. A curiously complete illustration of the equivalence of a monopoly and a tax is furnished in India, where, on the Bengal side, opium is treated as a Government monopoly, and sold to the highest bidder, the price being kept up by restriction on the output ; while, on the Bombay side, where it is grown in native States, a tax is imposed on the opium brought from those States for export from India. Moreover, just as in the case of a tax, the loss to the public is always more, and frequently very much more, than the gain to the monopolist.¹

Land is sometimes spoken of as a 'natural' monopoly. The use of the word 'natural' is almost invariably a sign of confused thought, but it is more important to search for the real meaning intended than to criticise the verbal rendering of it. Land is a species of capital, it is a machine for turning one grain of corn into many grains, or for multiplying cattle, &c. ; and the purchase or leasing of land is a way of investing capital ; and if there were perfect competition would compete with all other ways of investment. The question whether it is or is not a monopoly is in all cases a question of fact—Is there, or is there not, com-

¹ See note C.

petition? If we judge it in this way we must allow that in many cases the competition is imperfect, and that the landholder enjoys an imperfect monopoly.

The most important case of imperfect monopoly is that of the retail trade. In an ordinary town you may purchase the same book of any bookseller for the same price, and no attempt is made by one bookseller to lower the price against the others. Occasionally the exception which proves the rule occurs, and one of them does so, and he is then boycotted by his fellows, and every obstacle is thrown in his way. The same is true of retail trade generally, though in unequal degrees. A heavy fall in general wholesale prices makes itself felt in a less degree, and only after a long interval. The consequences of this are far-reaching and important. There is a great multiplication of shops far beyond what is required, for when profits are high, and the sellers do not compete and lower them, more shops are established, and the custom is distributed amongst a greater number. Things still sell in accordance with the cost of production, but the cost of production is greater than it was before.

The passage from a higher to a permanently lower level of gold prices causes a redistribution of

property in favour of fixed incomes at the expense of industry, which, however, is partly intercepted by the retail trade. By the fixed incomes are meant those derived from the funds, from rents, from fixed salaries, and, to some extent, from the practice of a profession, &c. If the annual out-turn is the same as before, and if these classes get a larger share, it is obvious that the other classes must get a less share. No doubt an adjustment takes place, but it is a very slow process indeed, and is never quite complete.

CHAPTER VIII

CREDIT

By what Adam Smith calls the higgling of the market, the coming to terms of the buyer and seller, some sort of mutual understanding is arrived at ; and, when the transaction is not all completed at once, but is wholly or partly deferred, this understanding becomes an agreement or contract between the parties. This, a deferred exchange, is the origin assigned to contract by Sir H. S. Maine in one of the most instructive chapters of his 'Ancient Law ;' and we draw attention to the fact, because it is from contract that we get the idea of credit.

In its primary sense of belief or trust, indeed, it may be said that credit is of the essence of every contract ; for, when time enters into the transaction, this is the one additional element introduced, and the preliminary bargain, the inchoate or rudimentary contract, does not become fully developed unless the time required

for its completion is so appreciable that one or each of the parties must trust the other. This, it is true, is not the analysis of the jurist, but that is because the very excellence of his definitions lies in the skill with which he substitutes for mental states those external acts or signs which imply them, and at the same time admit of exact proof. His definition is merely a generalised description of the conduct of the parties when agreements are entered into ; but, if we look behind their actions, we find that the offer and acceptance imply belief, or, rather, trust, for trust may be defined as belief which has influenced conduct, or which has passed into action. In the special or technical sense in which the word is used in Economic discussions, it will be found that the connection, though no longer with all kinds of contracts, but only with one class of them, is equally close. When in a deferred exchange the thing deferred is a payment of money, we have one kind or class of agreement—an agreement to pay ; and, when we come to examine the different things to which the name credit is applied, we shall find that there is always an agreement to pay, and that it is only in connection with such agreements that the term is used.

The words ‘agreement’ and ‘contract’ are

treated above as synonymous, but it is necessary to explain the difference between them, because the real connection is not between credit and contract, but between credit and agreement ; and contract has been introduced into the discussion only because, historically, the more complex idea was the first to present itself. It was the analytical sagacity of the Roman lawyers which first resolved a contract into its constituent elements of an agreement plus a legal obligation. The essentials of an agreement are stated by the jurist to be, first, a signification by the promising party of his intention to do the acts or observe the forbearances which he promises to do or to observe ; and secondly, a signification by the promisee that he expects the promising party will fulfil the proffered promise. If the agreement is a legal one, it becomes a contract ; but the law refuses to recognise agreements for various reasons, *e.g.*, they may be immoral or opposed to public policy, may tend to defeat the operation of some law, may have been obtained by fraud or without due consideration, or may have been executed without some specified formality as to writing, stamping, or witnessing of documents ; and in all these cases the promisee has no legal right as against the promisor. Legality is thus of the essence of a

contract ; and if, on examination, we find the term 'credit' applied indiscriminately to transactions which are legal and to those which are illegal, we must decide that legality is not necessary to it, and cannot, therefore, find a place in the definition.

As examples of credit, we may take the following: bank-notes, money-orders, bills of exchange, promissory notes, cheques, banker's book-credit, credit given by a tradesman to his customer, loans of money, money rents, and annuities ; and we may also note the expressions credit and debit, placing to credit, giving credit, and personal credit. On the other hand, the word is not applied to a bill of lading or a dock warrant ; to a *contingent* promise to pay, *e.g.*, when certain work is done or when a certain event happens (insurance) ; to a transaction in which payment is made beforehand for work to be done or goods to be delivered ; to one in which a person receives money on condition that he forbears from doing something, *e.g.*, enforcing a right ; or to an obligation to make good damages caused by negligence ; to return money paid by mistake, or to pay damages or compensation by order of a court.

If, now, we examine the first of these two

groups, we find that each case refers to the payment of money, and that each, with the exception of the last, personal credit, which may be taken as figurative or elliptical, implies that a promise of unconditional payment has been made and accepted, or, in other words, that an agreement to pay unconditionally has been entered into. An examination of the second group confirms this analysis. When the obligation to pay arises otherwise than through an agreement, *e.g.*, an obligation to make good damages caused by negligence, to return money paid by mistake, or to pay damages or compensation by order of a court, the transaction is not described as a *crédit* one; and the reason obviously is, that the indebtedness in these cases has its origin in causes other than trust. Again, if the agreement is not to pay money, but for something else, to labour, to deliver goods, or to forbear from doing something, the case would not, as the word is ordinarily used, be classed as credit. A contingent agreement, *e.g.*, an agreement by an insurance company to reimburse the owner if his house is burned down, is also excluded; that is to say, the person who pays the premium is not said to give credit to the company. Lastly, a few examples will show that legality does not

enter into the idea ; in other words, that it is with agreements and not with contracts that we have to deal. If a loan is irrecoverable because it is at an illegal rate of interest, to a minor, for an illegal purpose such as smuggling, or between parties whose countries are at war, or because the parties trust each other sufficiently to dispense with legal formalities, the lender would have no legal right against the debtor, but the transaction would, nevertheless, be regarded as a credit one. Of course we are not bound to adhere with absolute strictness to the received meaning of the word, but if we depart from it, we must be able to show reasons for doing so ; and in the present case it does not appear that any such reasons exist.

The formula, an 'unconditional agreement to pay money,' includes all that is classed above as credit ; but, as almost invariably happens, there is a doubtful margin which gives rise to difficulty. Annuities and money rents, the result of agreements, are included ; but how about those obtained by inheritance, or which have to be paid by the inheritor of the estate ? These cases we should regard as included in the definition, because the inheritance merely transfers, and does not create, the right or the obligation. Again, a shareholder passes imperceptibly into a part owner and co-

worker on the one hand, and into a speculative lender on the other—is, then, a share to be included? This we should exclude on the ground that the agreement is a conditional one, that the amount which is to be paid is not fixed and certain. Finally, how are we to class a new issue of an inconvertible paper currency? The original issue may have been convertible, but when the agreement is broken, when it is rendered inconvertible and subsequent issues are made, the definition no longer applies. The best course here appears to be to treat the case as what it is, closely analogous to credit, for the Government agrees to accept the notes in payment of taxes, but not credit, for the fundamental idea of an agreement to pay is wanting. The property or interest of the holder in such a note is a commodity, and may be transferred from hand to hand, but this commodity is not, strictly speaking, credit.

We have now ascertained the connotation of the term ; in other words, we have discovered and defined the cases to which it is applied ; but we have still to fix its denotation, that is, to determine the precise point in connection with the agreements which it calls attention to and denotes. As already stated, the primary meaning of the word is belief or trust, and this is still

apparent in the phrases getting credit and giving credit ; for it is the creditor who gives credit or trusts, and the debtor who gets credit or is trusted ; but at the present time it is spoken of, and written of, as something transferable, something which has a power of purchasing, and can, therefore, be bought and sold ; and if we are to regard these as real and not metaphorical attributes, we must look out for some other denotation than belief or trust, which are states of the mind, and cannot be transferred from one person to another. Now, when A draws a cheque on his banker and pays it to B, who, in the course of business, pays it away to C, what is it that passes from B to C ? A document, no doubt, but the document is merely evidence, and is not in all cases essential. What really passes is the interest of A in an agreement entered into between him and his banker. The banker agrees to pay A up to a certain amount, A transfers part of his interest in this agreement to B, and B transfers it to C. If the banker, instead of giving A credit in his books, hands him a bundle of notes, the transaction, though different in appearance, is essentially the same ; the banker agrees to pay A up to a certain amount on demand, *i.e.*, on presentation of the notes ; A

transfers part of his interest in this agreement to B, and B in turn passes it on to C. So in each of the other cases, bills of exchange, promissory notes, &c., we have, in the first instance, an agreement to pay, and we have, further, the possibility of the payee transferring his interest in the agreement to another. Can we, then, say that credit, from signifying the trust reposed in the debtor by the creditor, has come to denote the transferable interest of the latter in the agreement entered into between them, just as the word 'demand,' from a state of the mind, came to mean the quantity of a commodity purchased?

This question may be otherwise stated thus: How far does such a definition comply with the tests laid down? The first test is, that the definition adopted must depart as little as possible from the established use of the word; but that which must always be the final test of a definition is its utility, the light which it throws upon the science, and the grasp which it enables the student to obtain of the propositions and problems he has to master. Now, the more closely the subject is examined, the more it will be found that the definition proposed explains and justifies the popular employment of the word. Is credit wealth? Is credit capital? Are bank-notes

money, and is money capital? These, although not questions of fact, but of the propriety of definition, become at once intelligible if we regard credit as an objective reality, as a transferable commodity which is really, and not metaphorically, passed from hand to hand. Of course it is impossible to fully justify a definition at the instant of formulating it, but we believe that this definition, by removing the subjective element, will be found not only to accurately correspond to the facts, but to render them very much more easily intelligible.

Credit, then, may be defined as 'the interest of the payee in an unconditional agreement to pay a sum of money which is fixed or certain in amount.' To complete the analysis, however, we must examine the nature of this interest. We shall then discuss the only existing definitions of credit with which we are acquainted, Mr. Macleod's definition of it as a right of action against a person to pay or do something, and a current definition describing it as a promise to pay, and we shall then examine the explanation of credit and currency questions furnished by the theory or hypothesis of barter.

One class of contracts is important from a legal point of view, because the remedy of the promisee,

if the contract is broken, is affected. The class referred to is that in which the promise is to deliver, not certain specified and ascertained goods, but merely a certain quantity of a particular kind, or up to sample ; and the most important case is that of a money agreement, for the promise always is to pay, not certain ear-marked sovereigns, but merely legal tender to a value agreed upon. If A buys from B, and pays for, a cask of wine of which the quality is stated, but which is not otherwise specified, and if B becomes insolvent before delivery, A cannot claim any particular cask as his, and his only claim, therefore, is against B himself, or, in other words, against B's estate generally. The jurists have extended this idea to all contracts, and have made it, in fact, the basis of their whole conception of contract ; and they lay down that a contract creates only a right *in personam*, as distinguished from a right *in rem*, or proprietary right, which is transferred by a conveyance.

This is the legal view. The same distinction is of importance to the economist, because the number of agreements *in rem* is limited by the quantity of things to be exchanged, whereas there is theoretically no limit to the number of agreements *in personam*, and it is this fact which

makes our whole organisation of credit possible. If B sells his wine cask by cask, he cannot dispose of more than the amount in stock and at the same time meet his engagements ; but, in the other case, he may sell an indefinite number and yet contrive to procure wine before the dates fixed. The distinction may be further illustrated by the comparison (which we borrow from Mr. Macleod) of a cheque with a bill of lading. A bill of lading is a document conveying the title to certain goods which are in a certain ship, and which are capable of being identified, and the total value of the bills of lading in existence at any one time is, therefore, limited by the value of the goods in transit. To the number of cheques there is, however, theoretically no limit. If each person who deposited sovereigns with a banker required that the same sovereigns should be paid back to him, the liabilities could never exceed the cash in hand, and banking would be impossible. The actual state of affairs is, of course, very different. Every payment implies a receipt, and if the whole community dealt with the same bank, and transacted their business by cheques without drawing out the money, the banker would require no cash in hand at all, and would merely have to make book entries. In this country, although

there are many banks, the same result is partly brought about by their all dealing with the Bank of England, and extinguishing claims against each other by transfers in the books of that bank ; and although practically they must keep in hand an amount of cash which bears a certain proportion to their liabilities, this amount is far below their total liabilities, and the difference is the source of their profit.

Thus the interest of the payee, which is denoted by the word 'credit,' is an interest not *in rem* but *in personam*, a claim (whether legally enforceable or not) against the general estate of the debtor ; and in theory, though not in practice, the aggregate value of the agreements each debtor may make and fulfil need not depend on the value of his property. This it is which renders possible our vast superstructure of credit with its small basis of coin ; and for this reason also, as will be seen hereafter, the barter theory fails to explain questions of credit and currency.

Credit, as stated above, is sometimes described as a promise to pay. Against this it might be urged that a promise which nobody would accept would not be regarded as credit, but by introducing the word 'accepted' into the definition, this difficulty might be obviated. The real objection is more

serious. It is that 'promise,' in the sense in which it is used, is as vague and indefinite as the word 'credit' itself, for, in ordinary speech, a promise means a signification, an act, or sign by some one implying that he intends to do, or abstain from doing, something, and it is only by a figure of speech that the written evidence of a promise is called a written promise. Thus, in strictness, a promise cannot be transferred; and it appears, therefore, that in the definition given above it is employed in some other than its usual meaning, and this meaning is not explained. What is transferred is, of course, not the promise, but the interest of the payee. The other definition is Mr. Macleod's, that credit is a right of action against a person to pay or do something. This includes much, *e.g.*, a right of action for specific performance of contract, that would not ordinarily be classed as credit, but the chief objection has already been stated in anticipation. The idea of legality is imported into the conception, and, more than that, is made the head and front of it; and as the two ideas have nothing to do with each other, it need scarcely be said that this does not tend to clearness of thought. At the same time only those who have endeavoured to grasp currency questions through the old barter theory, and have

then studied Mr. Macleod's works, can judge how great an advance his definition is, and that which we have adopted is in reality only a modification of it.

Perhaps both Mr. Macleod's view and the objections to it will be more fully understood when we explain that it is only part of a wider conception put forward by him, that all exchange is of rights against rights. This, however, does not accord with the facts, and a little consideration will show that it confounds the possession of a thing with the right to it. Material things may be exchanged by persons who have no right to them, and who can convey none to the buyer. The same remark applies also to immaterial commodities, for every transferable right has some commodity, some privilege, convenience, or utility corresponding to it to which it is a right, and the right and the commodity may be separately exchanged. A curious contradiction of his view is also furnished by the existence of certain commodities which have no rights corresponding to them. The purchaser of a trade secret acquires no right to it unless a patent has been taken out, and, if he is careless enough to let it be discovered, has no legal remedy. So, if a person buys a medical practice, or the good-will of a business,

he obtains a kind of modified monopoly, but no right to it ; he cannot compel the patients or customers to come to him, and the expectation he has of obtaining the practice or business is based not on law but on custom. He may, indeed, possess a right against the seller that the latter will not compete with him, but that is not a right to the monopoly, which would be a right against the public generally.

We now come to the theory or hypothesis of barter, and we must ask the earnest attention of the reader, for we are convinced that to it more than to any other cause is due the chaos from which the science of Economics is only now emerging ; and if he is to master even the simpler problems, he must shake himself entirely free of its influence, and learn to seek for his facts in evidence and not in theory.

How deeply this theory has impressed itself on the ideas of Economics one example will suffice to show. Ask an economist in this country what is the central idea of capital, and he will tell you it is the food which the labourer consumes. This is the current conception of it, and on this the current definitions are based. But, if we turn to the language of the people, we find that, while the money paid by an employer

to his employés is, from the point of view of the former, capital, and from that of the latter, wages, neither title is conferred on the objects on which the workman chooses to spend his income. Examining further, we find that economists, applying the barter theory, and going behind money to the transactions which it covers, have substituted for the payments made by capital to labour the things which the labourer buys. The propriety of the definition is not here in question, but the fact that it is based not on what the word does mean, but on what it might mean if exchange were carried on in a way in which it is not carried on, shows the strength of the influence which has led to such an extraordinary course being adopted.

The theory is summed up in the statement that all exchange is barter, and we may, therefore, reasonably ask what this means. Obviously it is not a simple statement of fact, for barter in civilised countries is a thing of the past ; nor does it mean that we could do equally well without money, for all economists quote examples of the inconvenience of barter. We are thus driven to the position that it assumes, for purposes of argument, not a real state of barter, but a hypothetical state, in which things exchange in exactly the same ratios as if a medium of

exchange were used. Now, so far, although the supposition made is somewhat strained, no actual logical fault is committed. The mechanical philosopher does the same thing when he assumes the absence of friction, and thence deduces the laws of motion. The difference between the two cases lies in the manner in which the laws are applied. The latter confines his laws to the heavenly bodies, where friction, if any exists, is so slight as to escape detection by such instruments as we have devised ; and when he applies these to movements on the surface of the earth, he restores the factors he has suppressed, and takes account of friction, the resistance of the atmosphere, &c. On the other hand, the exponent of the barter theory, so far from allowing for any error arising from the hypothetical nature of his argument, takes the assumption originally made, which, be it again noted, was known to be false, and shown to be false when first put forward, and, expressing it in different language, treats it as an obvious truth which can be used as a key to unlock all currency problems.

That such can be the origin of currency theories which have been celebrated in their day may appear astonishing, but an attentive examination of the evidence leaves no doubt of the fact.

The upholders of the theory professed to explain the distribution of wealth without the intervention of money, not seeing that all the time their hypothesis really implied a medium of exchange ; and, as their inferences appeared to themselves to be in accordance with the facts, they concluded that the interposition of money made no difference. It was merely stating the same conclusion differently to say that it does not matter whether prices are high or low, for if a man gets less when they are low, he also pays less, and that an increase of money has no other effect than to alter the level of prices ; and this was then worked up into an elaborate theory of currency, and it was stated, without any attempt at proof, that prices depend only on the quantity of money and its rapidity of circulation, and vary exactly in the inverse ratio of the volume of the currency. It was in vain for manufacturers and others to protest that they lost when prices were falling and gained when prices were rising, they were declared to be under a delusion ; and the fact that the fixed incomes benefit by a fall in prices, which was too obvious to be overlooked, and was alone sufficient to upset the theory, was disregarded as trifling and unimportant.

The process of starting from an hypothesis,

deducing results therefrom, and inferring the truth of the hypothesis from the agreement of these deductions with observed facts, was theoretically sound. But this process was not fully carried out. In the first place the assumptions made should have been explicitly and carefully stated ; next, the results were *not* compared with the facts, and the only warrant of their truth was, therefore, the soundness of the original hypothesis ; thus the conclusion drawn that exports pay for imports is now known to be false in the sense originally intended, for imports may be in payment of previous debt, or of freight, or in return for home or foreign shares or securities, or as a loan. It was, therefore, arguing in a circle to infer the truth of the original assumption from the correctness of the conclusions. Again, too little weight was attached to the effect of a fall of prices in disturbing existing contracts and causing a practical redistribution of property in favour of fixed incomes. No account was taken, moreover, of the non-adjustment of retail and wholesale prices, it was simply assumed that an adjustment would take place. Lastly, the expression 'a general fall of prices' is ambiguous, and may mean either that all have fallen proportionately, or merely that all are lower than before ; and the

conclusion that it does not matter whether prices are high or low could only apply in the former event, whereas it was applied to cases actually occurring, and all cases that actually occur are of the latter kind.

The barter theorist considers that he has said everything there is to say regarding credit when he has described it as a deferred exchange ; but this view, though at first sight simple, is on examination found to be extremely confusing. Whether it is a deferred exchange depends entirely on what we mean by that expression ; and the argument that such is its historical origin is insufficient, for ideas change as well as living organisms. The difference between credit and an ordinary deferred exchange lies in the fact that at the time of the agreement the money which is to be paid is not ascertained or specified, and may be in the possession of, and the property of, some other person. How this complicates the question a single example will show. Suppose we have to solve a problem relating to bank-notes from the point of view of the barter theorist. By him coins are regarded as tickets or tokens entitling the holders to goods, bank-notes as other tokens entitling to coin, and credit as a doubly deferred exchange of goods for goods.

Thus the exchange is regarded as incomplete until the seller has again expended the money received, and in the meantime the goods which he is to purchase are the property of, and in the possession of, other people. The case becomes still more complicated when credit is introduced, *e.g.*, in the form of bank-notes. If all the holders of bank-notes took them to the banks and wished for coin, they could not get it; the coin, if in existence at all, is in circulation, and the property of other people. Exchange, regarded in this light, is no longer simple, it is a complex and unwieldy conception, and the mind grows dizzy if it seriously attempts to reason out a question of currency on such a basis.

The explanations of the barter theory have successively been discredited, and it is unnecessary to follow out its application to foreign exchange and other problems; our object is attained if we have shown that its method of dealing with credit cannot be accepted as dispensing with the necessity for a rigorous analysis and definition.

CHAPTER IX

MONEY

AMONG commodities which have been used as money are the following:¹ Dried cod, corn, maize, cacao-nuts, almonds, dates, olive oil, sugar, salt, cubes of tea, tobacco, opium, hides or dressed leather, furs, ivory tusks, cubes of benzoin gum, bees'-wax, red feathers, logwood, nails, straw mats, pieces of cotton cloth, iron shovels or hoes, powder and shot, engraved stones, such as the Egyptian Scarabæi, beads, shells, yellow amber, gold, silver, copper, tin, lead, iron, nickel, platinum, and various alloys, oxen, slaves.

The extreme comprehensiveness of this list brings into prominent relief the fact that money is not a particular kind or species of commodity, but a commodity utilised in a particular way,

¹ The entries in this list, with the exception of opium, are taken from the works of Adam Smith, Professor Jevons, and Mr. Macleod. Opium was till recently, and possibly still is, used at certain mines in Upper Burmah.

namely, to serve as a medium of exchange. Now the two simplest cases of this are when the buyer takes the balance due to him in something which he does not want himself, but which he hopes to dispose of to someone else; and when, before setting out, he procures a quantity of something in common use in order to enable him to obtain by exchange the things he desires. In both these cases, although it is necessary that the article should be portable and divisible, it is equally essential that it should be something in general request, so that there may be a good chance of the person to whom it is offered being in want of it, and so that, if he does not want it, someone else may easily be found who does. Thus we arrive at the conclusion that, in its most primitive form, the employment of anything as money rests on widespread and general demand as a basis.

These three qualities, portability, divisibility, and widespread utility, are essential; and there is another which is eminently desirable—it should be capable of being hoarded or preserved. This means that it must be durable, and, in a primitive society, that it shall not undergo much deterioration from concealment underground. Three other qualities are mentioned by Professor Jevons—homogeneity, stability of value, and cognisability.

The first of these is obviously always desirable, though in a less degree than the others previously mentioned ; the second becomes of practical importance only in an advanced state of society, when agreements in terms of money are extensively entered into ; and the third is, in the first instance, secured by the fact that the thing is widely used and, therefore, widely known ; and subsequently by stamping or marking it in a recognised manner.

Now widespread utility is requisite only to secure the general acceptance of the article, but, when people become accustomed to regard it as money, they consider less and less whether those for whom it is intended are in actual want of it themselves, for they know that it will be taken in any case ; and thus this quality, at first the most obviously essential of all, ceases to be necessary, and becomes of less and less importance. At length we arrive at a time when the metal employed as money is stamped on both sides and milled round the edges, so that it cannot be used as a commodity without ceasing to be money, and its use in this manner is now sometimes actually prohibited by law. Hence such a piece of metal has been described as a ticket or token entitling the holder to receive goods or services

from the society, but its original characteristic has not yet vanished. A sovereign may be regarded as a promise stamped on something, but it is more, for the metal on which the stamp is impressed is itself a valuable commodity, and is the security to the possessor that the promise will be observed.

When the qualities originally requisite are understood, and when the diminishing importance of widespread utility is recognised, it will excite no surprise that gold and silver should have displaced the other commodities mentioned in the list, and become the money of the civilised world. At first they were sold by weight like other commodities, subsequently bars or ingots of the metals were stamped at one end to denote their quality, so that if a portion were cut off for use the utility of the remainder as a medium of exchange would be unaffected ; and, finally, there were evolved coins, which are defined by Professor Jevons as ‘ingots of which the weight and fineness are certified by the integrity of designs impressed upon the surface.’ Thus we see in the history of money a typical case of evolution. First, we have the simplest kind of exchange, barter ; then, by a process which may be called spontaneous or natural, since we see it in operation at many different times and places, some one commodity

or kind of wealth is utilised, not only for consumption, but also for the purpose of facilitating exchange by acting as a medium ; subsequently, from among the various substances so employed, gold and silver emerge and survive their competitors ; and, finally, they become more and more specialised, and the portions intended for a medium of exchange are sharply divided off from the portions intended for consumption, and are stamped and marked in such a way that they cannot be even partially consumed without losing their character as money.

In the evolution of money, as we have seen, a quality which is at first essential is of gradually diminishing importance, and at length becomes, if we may use the expression, merely latent ; and the question then arises, what would happen if it were evolved out of existence altogether ? In the convertible bank-note we have a long step in this direction. The holder of the ' ticket ' is no longer in actual possession of the metal which is his security, but he can still get it when he pleases. A bank-note has a power of purchasing, a power which varies from time to time as prices go up and down ; and, quite distinct from this, it is a means of getting hold of a definite quantity of gold, the amount of which does not vary from time to time.

Its utility thus resembles that of an instrument of production, and is measured by the utility of the gold which it obtains. When the paper currency is inconvertible, is the change complete? Has the thing no value in use at all, no utility apart from purchasing power? We believe that no currency has in fact ever existed without a basis of utility, the paper being legal tender for the payment of existing debts or taxes, or there being an expectation that it would at a future date be convertible; but we may consider how far such a phenomenon, if proved to exist, would necessitate a modification in our existing ideas. In the first place, we should retain our ideas of value and commodity unaltered, but we should hold that the former term was not strictly applicable to such a currency; in other words, that the proper phrase to employ in alluding to it would be purchasing power and not value. In the next place, we should regard money not as a subordinate class or kind of commodities, but as an independent class, consisting partly of wealth, partly of immaterial commodities, and partly of things which were not commodities properly so-called at all; and in the third place, we should have to alter the definition of money given below by substituting the word 'things' for the word 'commodities.'

We have now traced the evolution of money through four distinct stages: (1) non-specialised commodities; (2) coins; (3) convertible currency notes; (4) inconvertible currency notes; and we have to decide whether all these classes should be included in the definition. On this point there is no doubt in the popular mind. Notes, both convertible and inconvertible, are so regarded, and we are not at liberty to overlook this view unless we are able to assign good reasons for so doing.

So far there is no difficulty, but money undergoes yet another metamorphosis. People talk of having 'money' at the bank, but all that they have is credit; if all the depositors sought payment at once they would not get it. In the money market such credit is spoken of as money, and it is used as a medium of exchange in exactly the same way as notes. It is also universally accepted as a medium of exchange, for if a cheque is refused, it is not because the refuser is unwilling to accept bank credit, but because he doubts whether the drawer has the credit he professes to have. Here the facts and the language have outstripped the ideas, for while such credit is used as a medium of exchange just as much as any of the commodities mentioned above, and while people actually call it money, they do not consciously picture

it to themselves as such. The proper course appears to be to retain our language, which is in accord with the facts, and to bring our ideas into correspondence with it.

We define money, therefore, as follows: 'Money means and includes any class of commodities, each of which is generally accepted as a medium of exchange.'

A person is said to accept a commodity as a medium of exchange when he receives it in exchange for another commodity, not intending to use it, but merely to exchange it again for a third commodity.

Mr. Macleod, as in other cases, gives a legal turn to the idea, and defines money as 'legal tender,' and thus includes Bank of England notes and excludes other bank-notes. In adopting this middle course he selects a class of commodities which have, no doubt, important attributes in common, but they are less so than those of the narrower class of coins or of the wider class to which the name money is given above, and at the same time he departs from the received and accepted meaning of the word. Of course there is no absolute right and wrong in such a case, but the weight of argument certainly appears to be against the course adopted by him.

CHAPTER X

COMMODITIES

As Economics deals with the machinery of society for directing its labour and distributing the fruits thereof, and as the Law of Supply and Demand, which directs the labour into the proper channels, and regulates the distribution of the fruits, brings about an adjustment by means of buying and selling, it is obviously of the first importance that our terminology should include a word to denote the wide class of all things which are bought and sold, and with which, therefore, the economist deals. Yet, strangely enough, the only writer on the subject who appears to have isolated this conception, and analysed and defined it, is Mr. Macleod. He has applied to it the important name Wealth, but this extension of the popular meaning of that word seems to us inadmissible in view of the strong associations which have grown up around it. There is no other name in possession of the field, and we have, therefore, ventured to employ

'commodity' for the purpose, as similar objections are not applicable to it.

Now, just as we might have defined wealth as all material things which 'are bought and sold,' or which 'are exchanged,' or which 'have a power of purchasing,' so by the mere omission of the word 'material' we might define commodities. In both cases, however, the objection is the same, namely, that the idea of exchange is not simple but complex; for not merely does it imply a double transfer arrived at by consent between the parties, but, if the exchange which we picture to ourselves is such as is carried on in a modern civilised society, it implies also the ideas of competition, of a market, of supply and demand, of value, and of a measure of value, and this renders it difficult, if not impossible, to disentangle the ideas of wealth and commodity from those of value and exchange. The logical process is to classify commodities and then ascertain what qualities they have in common; but a simpler method is, after classifying them, to ascertain in what manner and to what extent the ideas of transfer, quantity, and utility have become modified or changed as the conception of wealth has been gradually extended to non-material things.

In the table at the beginning of Chapter III.

is given a classification of commodities, and we may discuss them in the order in which they are there set forth. In shootings, fishings, the privilege of drawing water for motive power from a stream, of gathering wood from a forest, or of using land as a pathway, the buyer gets not material wealth, but only the privilege or power of utilising it in a particular way ; or, as we may say, a certain utility appertaining to it regarded as separated off from the full or complete possession, and (in this as in all other cases where the transaction is legal, and the seller has a legal right to the thing sold) he gets also the legal right to the privilege or power which he purchases. A person may, however, have the right without being in possession, and he may be in possession without any right to be so ; and as the right may be separately bought and sold it is to be regarded as a separate commodity.

In labour we have something quite different. Labour is always spoken of and written of as a commodity, as something which is bought and sold, but if we examine its nature we see that its essential part consists of mental or bodily exertion undergone by the labourer, of what the physicist would call an expenditure of force by him, and it is not this exertion or force, but the benefit,

advantage, pleasure, or enjoyment arising from it, or, to use the more comprehensive term, the utility arising from it, that the purchaser gets. Thus the Alpine guide or the punkah-puller undergoes exertion, and the tourist or the tropical resident obtains the utility arising from it. So, if the labour is expended in the production of wealth, the workman labours and the employer reaps the utility in the increased value of the thing produced. We may, therefore, describe such a transaction as one in which the actual utility is transferred; and, on the analogy of potential energy, we may contrast it with wealth and some other commodities by saying that in their case the potential utility is what is passed. Thus, when anyone buys a pound of sugar he is not actually benefited until he uses the sugar, so that the utility he gets may, as compared with that in the case we are considering, be described as potential.

Similar to this is the utility obtained, not from labour alone, but from labour in conjunction with wealth. Under this head we have the benefit obtained by passengers on railways, and in ships, omnibuses, tramcars, cabs, &c., and the enjoyment of those present at theatrical performances, concerts, and exhibitions of all sorts. The advantage from hiring a horse, a boat, an opera-glass at a

theatre, a fancy dress, a music hall for a night, &c., or from borrowing a book from a subscription library, may also be properly considered as included in this class ; for in all such cases some labour is expended in keeping the things in proper condition, and in making them over to and receiving them back from customers.

Analogous to this also is the case where the utility is derived from wealth alone, without the assistance of labour, *e.g.*, where the full or complete possession of a house or a piece of land is made over for a time to a lessee.

The cases that are left may be quickly disposed of. Credit has already been fully discussed, and from it the reader will be enabled to easily understand what it is that passes when the agreement is not to pay money but to deliver something else. Monopolies have also been examined, and, whether they are protected by patent or dependent on custom, the nature of the privilege, advantage, or utility which passes is easily intelligible and presents no difficulty. There remain a few miscellaneous cases of things which are not ordinarily treated as commodities, but which are occasionally bought and sold, and which must, therefore, for the time being be regarded as such, namely, a title, decoration, or degree of university

when sold, the privilege of using armorial bearings, the vote of an elector, or the services of an official given in return for a bribe, &c. These call for no remark at present, as the nature of the utility acquired by the purchaser presents no new features.

The following lists give representative instances of transferable immaterial things, and of the opposed or contrasted notion :

Transferable things: I. Shootings, fishings, privilege of using a mountain as a quarry, of taking firewood from a forest, or of walking over land ; transferable rights ; monopolies, whether legally protected by patents or not, *e.g.*, goodwill of a business, practice of a physician, trade secret ; transferable interest of promisee in an agreement ; inconvertible paper currency.

II. Utility derived from the labour of persons engaged in the production of wealth, or of professors, teachers, actors, physicians, barristers, or lawyers ; from a theatrical performance, concert, picture exhibition, &c. ; or from being conveyed as passenger in a railway train, ship, tram car, omnibus, cab, &c., or from hiring a horse or boat, &c. ; from renting a house or piece of land, or from using armorial bearings, a title, decoration, or university degree, or from the vote of an elector, or the services of an official, when any of these are sold.

III. Benefit conferred by the army, navy, judges, magistrates, policemen, and other public servants.

Opposed or Contrasted Notion: IV. Privilege of being maintained by near relatives in certain cases, of being tried by jury, of using a hereditary title, or a title or decoration which is not sold; the legal right in each of these cases; vote of an elector when not saleable, personal strength and ability and acquired skill; love, hatred, the light of the sun, &c.

The things named in the first list are transferable in the same sense in which material wealth is so, that is to say, the possession, the power of using, may pass from one person to another any number of times. Perhaps, too, it might be held that the utility of labour expended in the production of wealth is thus transferable, for it is embodied in a material form; but we do not, as a matter of fact, speak of a sale of merchandise as a sale of labour, and such a metaphorical method of treatment is apt to lead to confusion and not to clearness of thought. If, then, we are to describe the utility in the cases named in the second list as transferable, we must considerably modify the meaning of that word, for the recipient cannot pass it on to anyone else. What, then, is the

general idea which this second list presents to us? On the one hand, we see that the Law of Consumption, the Law of Supply and Demand, and the ideas of value and exchange, are equally satisfied if, instead of the commodity being transferable any number of times, it can be transferred once from the producer or maker to the person who consumes or utilises it; and if the quantity transferred to each person is graduated or measured so that he may adjust his expenditure in each direction. On the other hand, we have to distinguish this notion from that suggested by some of the items in the fourth list. The vote of an elector, and a title or decoration, when saleable, become commodities, and love and hatred may in a sense be said to be transferred to the object of these feelings. These cases seem to be sufficiently distinguished by the fact that the transference is not free, that the personality of the recipient is not a matter of indifference. Thus, when the utility is potential, the commodity is transferable if the power of utilising it can be passed from one person to another; and when the utility is actual, it may still be regarded as transferable if it might, in the first instance, have been given indifferently to either person.

The inclusion of the labour of public servants

in the class of commodities stands on precisely the same footing as that of public buildings in the class Wealth, and the remarks made above with reference to the latter are equally applicable to the former.

We may then adopt the following definitions :

‘ The possession of a commodity means, when the utility is potential, the power, and when the utility is actual, the process, of utilising it ; and a person is said to acquire possession, or to be put in possession, in the first case when he acquires this power, and in the second when he actually utilises the commodity.’

‘ A commodity is said to be transferable when its possession can be conferred indifferently on any one of two or more individuals to the exclusion of another or others.’

‘ A commodity is said to be transferred to a person when the person acquires possession of it.’

‘ Commodity means and includes all transferable things which possess utility, and of which the quantity is limited.’

The conception of utility has also become considerably modified, although no change is called for in its definition. When only material things are exchanged, the utility is always potential, and may be described as direct or indirect according

as the consumption is personal or impersonal. Immaterial commodities give us two new ideas. There is, first, actual utility, which has already been discussed, and, secondly, there is the utility of such things as a bank-note, a bill of lading, or a transferable right. In the first case the utility may be either direct or indirect, while in the second it is similar to that of an instrument of production, a means of obtaining wealth, and may, therefore, be always classed as the latter.

It is unnecessary to enlarge on the relationship between the ideas of commodity and value. All commodities have utility apart from purchasing power ; their final utility denotes the extent to which their initial utility is diminished owing to their quantity, and this final utility governs and is measured by the price. The two terms are applicable to the same things, but while the one connotes the three ideas of transferability, quantity, and utility, the other connotes only the two latter, and denotes the variable quality resulting from the combination.

Labour itself has not yet been defined. As examples we may take that of the following persons: (1) Workman in a factory, blacksmith, ploughman, farmer, sailor, civil engineer, sculptor, artist who sells his pictures, author,

(2) Cab driver, employé of a tramway company, actor, professor, teacher, barrister, lawyer, surgeon, physician, domestic servant, Alpine guide, private detective.

(3) Persons belonging to the army, navy, and police, judges, magistrates, persons employed in looking after public buildings, public parks, public roads, &c.

Opposed or Contrasted Notion : (4) The exertion of a person who rides a horse with no aim beyond the gratification of the moment, or who takes a walk for the benefit of his health ; the artist who does not sell his pictures, the mother who nurses her own children, &c.

The first class includes those engaged in the production of wealth, the second those engaged in the production of utility which is not embodied in a material form, and the third all public servants. The line, however, cannot in all cases be clearly drawn. For example, railway employés come under the first head as regards goods traffic, while professors, in so far as paid by fees, come under the second head, and in so far as paid by fixed salary, under the third. On the doubtful margin we have the exertion of the philanthropist, of the member of Parliament, of the unpaid scientific investigator, and of the prisoner in gaol who works

the treadmill, or turns a crank, but produces nothing. This classification gives a very wide meaning to the word, but when labour is opposed to capital, or the labouring classes are referred to, or when the expressions 'agricultural labour,' 'the labour party,' 'a labour candidate,' are used, it is obvious that the signification is much narrower. In these cases the labourers are persons who sell their labour to employers, that is, to the representatives of capital, and the reference is for the most part to such classes of them as form combinations under the impression that their interests are opposed to the interests of the employers. There seems, however, to be nothing in popular usage to prevent us assigning the widest meaning to the word, and, on the other hand, it is desirable by a broad definition to give prominence to the fact that all the classes referred to are working together for the common good.

If this classification is accepted, we see that the distinction turns on whether the labour is paid for or not, whether it is bought and sold, or, in other words, whether it is actually treated as a commodity. It may, therefore, be defined as follows : 'Labour means any mental or bodily exertion on the part of human beings which gives rise to transferable utility.' This, it may be observed,

would include the labour of the artist who does not sell his pictures. For the words 'transferable utility' we might, if we pleased, substitute the single word 'value,' for it is final utility that is referred to, and value is also used in this way, *e.g.*, in the phrase 'to get value for your money.'

Professor Jevons defines labour as any painful exertion of mind or body undergone partly or wholly with a view to future good. The first objection to this is the restriction to *painful* exertion. As a rule, if there be only a little of it it is not so, and many others, besides the artist and the author, find pleasure in their work. In the next place it is not stated whether the future good includes that of the labourer himself. The future good which the actor works for might be his salary—but how if this were prepaid? Again, would it include the exertion of a person who takes a walk for the benefit of his health?

We may now examine more closely the propriety of limiting the denotation of the term 'wealth' to material things.

In Marshall's 'Economics of Industry,' and in many other works, personal qualities and acquired skill are classed as wealth, and therefore *a fortiori* as commodities. It is true that a man is sometimes said to sell his skill or ability, but such

language can be regarded only as metaphorical, for neither does the seller divest himself of it, nor does the buyer acquire it. What actually happens, as we have seen, is that the seller exerts himself or labours, and the buyer is benefited thereby, and it is, therefore, both simpler and more accurate to say that what the latter purchases is the utility of the labour ; and this view has the advantage that it includes also the cases in which the utility is derived from both labour and wealth, and from wealth alone. Moreover, when we say that a man sells his labour and that he sells his ability, we are describing only one set of facts, and we ought, therefore, to confine ourselves to one method of stating them. The real question at the root of the matter in this, as in all similar cases, is, of course, one of classification—Have material wealth and personal qualities such numerous and important attributes in common that they should be included under one name? When the question is put in this way it appears to us that there can be only one answer to it. The laws which relate to the production, accumulation, and distribution of wealth are different from those relating to bodily strength, mental ability, sobriety, honesty, &c. ; and we gain no additional insight into the industrial mechanism by classing them together. On the

contrary, such a classification leads to confusion and not to clearness of thought. Capital and labour are the two factors of production, and the equivalent of the value produced is divided between them ; but if we class acquired skill as wealth and capital, our ideas of labour and capital, and of wages and profit, become jumbled up together. A nation with the qualities referred to will no doubt soon become wealthy, but we gain nothing by confusing cause with effect, and calling the qualities themselves wealth.

If, however, it be admitted that the name 'wealth' can be applied only to certain kinds of commodities, we have still to determine whether there are sufficient reasons for limiting it to such as are material. Now there can be no question that when a man is spoken of as wealthy, or the amount of his wealth is alluded to, the reference is not to the value of the material things, but to that of all the commodities to which he has a right. On the other hand, when the national wealth is spoken of, the reference is primarily to material wealth, although sometimes, also, the net debts owed by other countries to us may be included. Can we reconcile those two conceptions ?

An attempt is made to do so by those economists who regard wealth as the sum total of

the wealth of the individual or group of individuals under discussion, and hold that when national wealth is considered, debts between individuals cancel out. That is to say, credit is wealth from one point of view, and not wealth from another point of view. Here we have two distinct conceptions, and the correct scientific method of dealing with such a case is to call them by different names. This course is rendered all the more obvious and easy from the fact that there is already a word in popular use which exactly corresponds to this conception of individual wealth. Among the meanings of 'property' given in Annandale's dictionary are the following: 'The exclusive right of possessing, enjoying, and disposing of a thing; ownership; the subject of such a right; the thing owned; an estate, whether in land, buildings, goods, money,' &c. Thus, property may be defined as 'any commodity the utility of which is potential.'

This, we venture to think, is a complete and satisfactory solution of the difficulty.

CHAPTER XI

CAPITAL

THAT clearness of language is necessary to clearness of thought could not be better exemplified than by the existing discussions on capital, for the facts are, for the most part, simple and undisputed, and yet the want of an exact terminology has involved all the ideas regarding it in confusion. In order to clear up the subject we shall first endeavour to convince the reader that the conception developed by the glosses of successive commentators of the English school must be entirely discarded. When the ground is thus cleared, the analyses already given of production and value will enable us, without much trouble, to classify the objects to be defined, and here, as elsewhere, it will be found that popular language requires very little alteration to adapt it to scientific use.

Adam Smith entitled his great work 'An Enquiry into the Causes of the Wealth of Nations.' He seems to have been much struck with the fact

that some nations grew in riches and prosperity, while others, like the Dutch and Spaniards, sunk and declined ; and he apparently conceived of the wealth of a nation as consisting of two parts, one of which was dead and inert, while the other germinated and fructified ; and his object was to identify and separate this latter portion. Hence he divided capital into two parts—national capital, the increase of which made the nation richer than before, and private capital, which yielded an income to the individual, but added nothing to the wealth of the country. What was believed to make the nation richer was the production of new wealth, and this idea became thenceforth associated with the conception of national capital as the cause of the wealth of nations. Hence arose long and barren discussions regarding productive and unproductive labour. Other notions were also grafted on the original theory, such as that saving is the true vital force, and that the consumption of luxuries prevents a nation from getting richer ; but throughout all the changes the original object of the inquiry seems never to have been lost sight of.

In saying this, we are prepared to admit that the barter theory, when employed to eradicate the notion that wealth consists solely of money,

rendered inestimable service ; what we consider unfortunate is the combined development of the two theories under the hands of the English economists. Money paid as wages is popularly regarded as capital, but they discarded money, thereby narrowing the received meaning of the word ; and they substituted for money the things purchased by the labourer, thereby extending the meaning in a new direction. Then, under the influence of the dislike to luxuries, they cut these out, leaving only the necessities of life ; but, on second thoughts, considering that a certain modicum of enjoyment is necessary to enable the labourer to attain his maximum efficiency, they allowed that so much of his expenditure on luxuries need not be reckoned as unproductive. Next, buildings, machinery, and other forms of capital, being the produce of labour, were regarded as embodiments of the necessities of life of the labourers who produced them ; a figurative style of treatment wholly unsuited for the basis of a scientific definition, and which led to a great confusion of fact with metaphor. In the meantime the word 'productive' had proved wonderfully elastic, and instead of being restricted to industrial operations, properly so-called, was extended to all that increase the efficiency of industrial labour, or

even remotely 'protect or assist its employment. Thus the services of the employer are as indispensable as those of the labourer, and, therefore, some portion of the cost of his living must be included as capital. Moreover, if the race of labourers is to be kept up and production continued, their wives and children must be maintained, and whatever is necessary for this purpose must, therefore, be regarded in the same light. Finally, the soldier and policeman are necessary for protection, and the clergyman inculcates morality, and so tends to increase efficiency, and these, therefore, may also be classed as productive labourers.

That this definition is hopelessly at variance with the popular meaning of 'capital' is, perhaps, the least of its faults. It cannot be justified by its results, for it leads not to truth but to error. It was arrived at, not from an intelligent examination of the arguments for and against it, but from a consideration of what the word would have meant if two metaphors, that exchange is barter, and that machinery, buildings, railways, &c., are the necessities of life of the labourers, had been actual statements of fact. To call attention to the procedure followed is to show its absurdity. Unfortunately, also, the barter theory,

by making the whole science hypothetical, and giving rise to the idea that it is purely deductive, diverted attention from the actual facts, and prevented the detection of the errors which arose. When to this conception of capital, blindly evolved, in defiance of all the canons of definition, from a confusion of metaphor with fact, we add the fallacy that it does not matter whether prices are high or low—another child of the barter theory—and then proceed to examine the important proposition that industry is limited by capital, we find that it has turned into the well-known Wage Fund Theory. The fundamental idea is that capital is the demand for labour, and consists at any given time of a stock of the necessities of life which can neither be increased nor diminished, but will simply be divided amongst whatever number of labourers may happen to be employed. The slightest observation, however, shows that if men cannot find employment, it is not because there is a lack of the necessities of life. The shops continue well stocked, and even in the worst times comparatively few in this country die of starvation, so that somehow, through work-houses, friendly societies, or relatives, they do get what is absolutely needful; and it might equally

well have been given in return for work if nothing more than that was required.

Fortunately, however, this conception of capital exists nowhere outside the writings of economists, and, therefore, if the opinion that it is manifestly wrong be accepted, it can be easily thrown aside. It has, in fact, failed to earn a prescriptive right to existence, and we shall not consider ourselves bound to recognise it when working out the analysis and definition by the method hitherto followed.

Capital, according to Sir H. S. Maine, is derived from 'capitale,' kine counted by the head. The application of capital to land is, therefore, the most primitive fact connected with it, and capital and land are at first opposed to each other. Again, it yields a constant income, milk for food, assistance in ploughing, and manure, and it also increases and multiplies. Other writers state the origin of the word differently, but we prefer this, both because it explains the persistence with which these ideas have clung to the word, and because, when Sir H. S. Maine ventures an opinion on such a point, he is very unlikely to be mistaken.

The following is as exhaustive an enumeration as we can make of representative instances of

things to which the name 'capital' is commonly applied :

I. Wealth used in the production of other wealth : Factories, machinery contained in them, railways with their rolling stock, canals, harbours, docks, steam and sailing ships, all kinds of tools and appliances used in production ; substances such as coal, oil, &c., completely consumed in production ; raw material ; warehouses with their stocks of merchandise ; merchandise in transport for subsequent sale, *e.g.*, exports and imports ; goods carried by rail, canal, &c. ; retail shops with their goods.

II. Wealth used in producing actual utility : Railways, ships, &c., used for passenger traffic, the wealth used for carrying on business by a physician, barrister, or lawyer ; the wealth of a tramway company, a hotel, the Crystal Palace, a lending library kept by a bookseller, a stock of horses kept for hire, a number of houses kept to let, a set of bathing machines for hire, a hansom cab owned by the driver, a private school, a theatre.

III. Immaterial property so used : A patent, a trade secret, the goodwill of a business, the practice of a physician, the privilege of drawing water for motive power, a right of way.

IV. Credit other than money : Stocks kept by a stockjobber for sale to his customers, bills bought and held by a banker or broker, Government stocks held by a private individual who simply draws the income.

V. The property, other than money, of bankers, stockbrokers, and bill-brokers used in carrying on their business ; similar property of insurance companies.

VI. Money used in carrying on the operations named above ; money used in extending them or in creating new operations of a similar nature ; money not restored to circulation, but transferred to someone else in purchasing an existing business.

Opposed or Contrasted Notions :

VII. Private consumption : Such wealth as the following consumed by the owner, food, clothing, dwelling-house and its contents, a private garden, private carriage, private yacht, &c.

VIII. Public consumption : The National Gallery, the British Museum, public parks, public roads and streets, churches, &c.

IX. Labour.

X. Land used for agriculture.

The first list relates to operations which directly increase the quantity of wealth. The

raw material on which the labour is expended is by all economists classed under this head, and on the same principle we include merchandise in transport, and the stocks of wholesale and retail traders. The quantity of wealth is measured not by the weight or the bulk, but by the value, and the value may be increased by a better distribution in space or time as well as by a change of form.

The items in the second list have reference to cases in which actual utility is produced and consumed without being embodied in a material form. Such operations might be properly classed as production without regard to whether or not the utility or value produced is of the nature of luxury. The reason why the word 'productive' acquired an ascetic tinge has been explained, but such a view is entirely opposed to our whole conception of what is meant by the 'greatest good of the greatest number.' The object of all labour is to produce utility, and whether this is embodied in a material form for future consumption, or enjoyed at once, is a detail which does not justify us in regarding the one with approval and the other with dislike. The important point in a consideration of the national well-being is the annual consumption and not the

annual accumulation, except in so far as the latter leads to increased consumption in future years. Neither is the distinction between necessities and luxuries relevant. If the workman prefers to eat somewhat less and go to the theatre occasionally, we presume from his action that his happiness or well-being is increased thereby. Of course we do not advocate spending at the expense of saving ; all that we mean to say is, that the maximum of utility will not ordinarily be obtained from the part of the income set aside for present expenditure if luxuries be entirely excluded.

The next list includes immaterial property used in similar production. Such property would be popularly held to be part of the capital of a company engaged in any of the operations referred to in the first two lists. An invention is the produce of labour, it possesses utility, and the law, by granting a patent or right to exclusive use, makes this utility transferable. So the privilege of obtaining water for motive power or of quarrying stone may be utilised for production. The important point to look to is the value expended as compared with the value produced, and such items might, therefore, be properly included under the head of 'Production Capital,' or 'Capital used in Production.'

Among the opposed or contrasted notions is, strangely enough, agricultural land. We speak, however, of agricultural produce, and we call agricultural labour and agricultural operations productive. Agriculture may be said to be manufacture by organic process as contrasted with manufacture by inorganic process, and both are clearly 'production.' If, then, we are to associate the ideas of capital and production, we must hold agricultural land to be one kind or species of the former.

The opposition of capital to land seems to have an historical origin, and to take us back to a time when capital meant cattle, but this opposition has now disappeared. In an advanced country such as ours the cultivable area is enormously increased by the expenditure of capital and labour on the raw material of swamps, barren wastes, and primeval forests, and such land is as much the produce of labour as anything else. Large portions of it also—canals, railroads, harbours, building sites, mines, &c.—are now unmistakably capital; land can now be readily converted by exchange into capital and capital into land; they compete together as openings for investment, they compete together in the labour market, and they both most emphatically form

part of the national mechanism of production, the national capital, the national subsistence fund, or whatever else it may be called.

The one argument which will probably be thought unanswerable, is the existence of important discussions on labour and capital which do not relate to land. If we had to alter the language in which these questions are argued we should have to admit at once that the task was hopeless; but that is unnecessary. Land is quite as much concerned in these disputes as some other kinds of capital, *e.g.*, that invested in the wholesale or retail trade, or even that invested in shipping which employs the labour of sailors. In such cases capital refers vaguely to all who employ labour, but especially refers to those who employ labourers sufficiently numerous and sufficiently near each other to combine together and strike; and though agricultural labourers have not as yet gone far in this direction, they have begun to form unions. Thus this argument, when examined, turns out to be rather in favour of than against the inclusion of land.

On the other side, there are certainly weighty arguments which are very fully stated in the following extract from Mr. Smart's translation of

Professor Böhm-Bawerk's 'Positive Theory of Capital':

'The next stage of the controversy brings us to the question whether we are to give the name of capital only to the *products of labour* that serve for acquisition, the "previous stored up labour," or are to include land. Both views claim for the name of capital a really important and fruitful conception. As contrasted with labour, land has so much in common with the "produced" acquisitive instruments of material nature that a union of them under one conception has good justification. So, too, the income which flows from the two kinds of acquisitive instruments has, in many essential respects, the same nature, and this likewise favours the uniting of them in one conception. On the other hand, in many essential respects, land and capital take different ways. The former is immovable, the latter, for the most part, movable. The former is a gift of Nature, the latter a result of labour. The former cannot be increased, the latter can be. The landowner has a social and economical position essentially different from that of the capitalist; property in land is justified on essentially different grounds from property in movables. Land is the special object of a kind

of production which is economically distinguished by many important peculiarities. Income from land, while subject to many laws in common with income from capital, obeys many distinct laws of its own—land rent, for instance, rising with economical development, while interest falls. On all these considerations, the number of which might easily be increased, it is most convenient to keep land quite distinct from the other kinds of productive wealth.

‘Thus the two competing conceptions are fairly well balanced in importance and suggestiveness, and if these properties were the only things to look to in deciding our controversy the decision might really be left very much to individual choice. If, however, we go on to compare the two in the light of the other rules we have laid down as regulating appropriate terminology, we find several points in which the “complex of produced acquisitive instruments” has a definite advantage over its competitor. The first is that of economy of terms. If we apply the word “capital” to *all* the material means of acquisition, then the narrower of the competing conceptions, and the branch of income that corresponds to it, remain, notwithstanding their importance, without any name at all. When we

have disposed of the words "capital" and "rent of capital" otherwise, we have no correspondingly simple name, either for the group of produced acquisitive instruments, or for the income that comes from them. On the other hand, we avoid any such confusion of terminology by giving the name "capital" to the produced acquisitive instruments. The totality of all material acquisitive instruments may then, well and simply, be called "acquisitive wealth," and all income flowing from it may, on Rodbertus's precedent, be called rent, with its convenient subdivisions of land rent and capital rent.

'The limitation of capital to "produced means of acquisition" has another advantage in being in accord with popular usage. Both scientific and popular language tell us unmistakably that they do not put land under capital, but oppose the two. The genius of our language plainly distinguishes between landowner and capitalist. No one will say that a nation that has an abundance of fruitful soil is possessed of great capital on that account. The name of interest is never applied by people generally to the income from land, and in scientific literature it is so applied only by an insignificant minority. And in the discussion of the great social problems,

property in land and property in capital are generally attacked and defended by quite distinct people and by quite distinct methods. If we sum up all that has been said, the conclusion seems to be that while, for reasons repeatedly given, there can be no idea of an absolutely convincing argument, there is still a considerable balance in favour of defining capital as the "produced means of acquisition," and against the inclusion of land.'

As regards these arguments, however, we may venture to point out that it is not correct to say that capital other than land is chiefly movable. Nor are the antitheses, 'the former is the gift of nature, the latter the result of labour; the former cannot be increased, the latter can be,' accurate, if by 'gift of nature' is meant something obtained without labour, and if by 'land' is meant land fit for agriculture. Again, the statement that the name of interest is never applied by people generally to the income from land is not relevant; as interest has to do only with money, it is the price paid for the loan of money; and the price paid for the loan of material wealth is called either rent or hire.

The fourth list contains three items. The first of these—stock held by a stockjobber for

sale to his customers—would undoubtedly be popularly regarded as capital. The next—bills held by a banker or broker—would be called an investment of capital, and probably also capital. This raises the question whether an investment of capital is synonymous with capital. The third item—Government stock held by a private individual who simply draws the income—is frequently spoken of as capital; but, on the other hand, the increase thus derived is not usually classed as profit.

We are now dealing with the investment market, and, as already observed, increase of value has here a different meaning from what it has in the produce market. In considering value in relation to personal consumption, we ignored that portion of income which is set apart as a provision for the future, and we have now to bring it prominently forward and to take account of it.

The conception which seems to throw most light on the facts is that put forward by Mr. Macleod, of credit as 'property in the future.' What the investor wants is property in the future, and what the producer wants is property in the past, that is, property already in existence.

Now, when a company is first floated, the

price of the shares gauges the estimate in which they are held ; but, when the period of probation is past and the enterprise proves successful, the shares rise in value. The element of risk is now diminished, and the higher price shows the estimate in which the shares are now held, shows the utility, when the judgment of the person concerned is taken as the measure of the utility. When personal consumption is concerned, this judgment is the final test ; but here, facts may confirm it or prove it to be unsound, and in the former case we have a new idea of increase of value.

Persons who are sound financial critics may make a profit out of such an increase, and they render a service to society by directing new production into the most profitable channels.

Moreover, just as is the case with the merchandise of a shopkeeper, such shares or stocks may increase in value from a better distribution in space, or a better distribution in time.

Thus, in some cases, credit, as defined in Chapter VIII., is popularly classed as capital ; but when the question is raised whether credit is capital, the reference is usually to what is called personal credit. To this question a different answer must be given.

Credit, as defined above, is the interest of the promisee in an agreement to pay, and implies that the promisor and the promisee are different persons, and that the promise is accepted. A promise to pay oneself is not credit, and if the interest comes back into the hands of the promisor the agreement vanishes. Thus credit is a commodity only so long as it is in the possession of someone else than the creator of it ; and it is only on that condition that it is property, and that it is capital.

Personal credit is, in fact, exactly analogous to labour, and, just as we do not regard the latter as wealth or property, so we do not regard the former as capital. No inventory of a person's property includes his personal credit, nor is such credit shown as capital in any prospectus or balance-sheet. So, when a man borrows money, he is said to raise capital on credit, but his credit itself is not usually called capital. On the other hand, the goodwill of a business includes something very closely akin to this. When a person sells his business he takes his personal credit along with him, but the purchaser carries on the business just as before. So, if a private banker sells his bank to a company, the latter pays for, and gets as part of the goodwill, what is fre-

quently meant when the banker's credit is referred to.

The answer that we give to the question then is, that personal credit, strictly so-called, is not capital; but that what is meant by personal credit is very frequently included in the goodwill of the business.

We may now discuss the definitions of Production and Consumption.

Production is opposed, in the first instance, to private and public consumption, and means generally an increase, as compared with a decrease, of utility or value. At first sight, however, it seems difficult to reconcile the ideas. Why should we say that when a man rides in a hired carriage there is production, or an increase of value, and that when he rides in his own, there is consumption and a decrease, or, at any rate, no increase; and when a theatrical performance is over, where is the increase of value? The explanation lies in the fact that the transaction is regarded from the point of view of the owner of the property. Thus, the person who lets out carriages on hire spends money on his establishment, and, if his receipts exceed his expenses, there is, as far as he is concerned, an increase of value, although that value is consumed by someone else.

This conception, however, associates production with the idea of a market, for it confines production to cases in which the increment of utility is not enjoyed by the producer, the owner of the wealth ; or, in other words, to cases in which it is sold or placed in the market. Thus, production calls up the idea of benefit to others, consumption of benefit to oneself or to others on one's own behalf ; and, in the former case, the benefit is distributed by means of the market and the Law of Supply and Demand. In the case of wealth, production is synonymous with operations which increase the value of material things ; and this view might, as we have seen, be extended, so as to include the transfer of actual utility. Both cases would be included in the definition of production as 'any operation which directly produces value' ; but we have still to consider the operations of insurance, banking, and the Stock Exchange.

The loss of a man's whole fortune is much more than twice as severe a blow to him as the loss of half of it, and more than a hundred times as severe as the loss of the one-hundredth part of it. Hence, if the chances are 99 to 1 against his place of business being burned down within the year, and if this would cause him a

loss of 1,000*l.*, he will be willing to pay a great deal more than 10*l.* to avoid the risk of so heavy a loss; or, in other words, the utility of the guarantee will be worth more than 10*l.* to him.

Banking is part of the mechanism for investing savings. It places capital in the hands of those who are able to make the best use of it, and, therefore, to pay most for it.

An increase in the value of stock is an entirely different thing from an increase in the value of produce. When the shares rise because an enterprise proves successful, the change is in the estimate formed of it; whereas when wealth is 'produced,' the change is in the thing itself. It is a change of the latter nature that we ordinarily associate with the idea of production.

Now we have three courses open to us: we may use production only in the narrow and restricted sense of the production of wealth, we may include also the production of actual utility, or we may widen the meaning so as to take in the whole organisation of industry. The first course practically involves the waste of an important term, for we should have two expressions, 'production' and 'production of wealth,' to denote the same idea. The second is inadmissible because a definition which included the barrister and

excluded the banker would be at variance with the popular conception, for the latter is more nearly connected with the production of wealth than the former. The third is in accordance with the etymology of the word, and has the great advantage of making production and capital co-extensive, and enabling us to define the latter by the former.

Production is opposed to personal consumption, and the two expressions may be defined as follows :

‘ Production means and includes the operation of preparing a commodity for and of placing it in the market.’

‘ A commodity is said to be personally consumed when it is utilised for the personal benefit or gratification of the possessor or of others on his behalf.’

When a schoolmaster teaches his pupils, there is production on the part of the former, and consumption on the part of the latter. A physician visiting his patients offers an apparent exception—is his use of his private carriage personal consumption or production? We may get out of the difficulty in this case by regarding the driving and the visiting of the patients as part of the same operation.

Mr. Macleod defines capital as 'an Economic quantity, used for the purpose of profit.' The objection to this is that it includes labour, whereas labour and capital are almost invariably opposed to each other, and nothing is gained by going against popular sentiment in this manner.

The definitions we suggest are the following :

'Capital means property employed in production.'

'Vested Capital means property other than money utilised in production.'

'Money Capital means money employed in production.'

'Investment of Capital means the conversion of Money Capital into Vested Capital.'

We have still to define 'profit.'

In the popular conception of profit, as in that of capital, the transaction is regarded from the point of view of the owner of the property. This way of looking at the question, however, disguises the fact that the additional value produced is divided into two parts, and that labour gets one part and capital the other. If this value increases, there will be a demand for more labour and a demand for more capital, and the remuneration of both will increase. Moreover, if the owner is the manager, he puts down nothing for

his salary, but calls all that is left over 'profit'; whereas, if there is a separate manager, his salary is regarded as part of the expenditure; so that the word sometimes means one thing and sometimes another.

Mr. Macleod defines it as follows: 'The sum actually expended in placing any commodity in the market is its Cost of Production; and the difference between the Cost of Production of anything and the sum it actually sells for is termed Profit.' This definition, however, leaves 'actual expenditure' undefined, for that expression, though apparently free from ambiguity, is in reality very far from being so. The only way of grappling with the difficulty is to enumerate the items of expenditure thus: 'Raw material, coal, chemicals, lighting, wages, fire insurance, rent, rates and taxes, depreciation fund (for renewal and repair of block, tools, and machinery), petty miscellaneous expenses, discount paid to banker, interest on money originally borrowed to start the business.' We have here two contrasted notions, the original outlay in starting the business, and the current expenditure, the expense of carrying it on. The difficulty lies in dealing with those items, such as rent, wages of manager, and insurance, which are sometimes actually paid and sometimes not.

Here, as so often happens, whether we include or exclude these, the course taken is open to objection.

In these circumstances perhaps the best solution of the difficulty is to accept the popular conception as we find it, and to remember, when instituting a comparison between different cases, to make allowance for the fact that the items included are not always the same. We therefore define actual expenditure as follows: 'Actual Expenditure means the expenditure for carrying on and maintaining a business as distinguished from the original outlay, and includes the wages of the manager, rent, insurance, discount and interest only if these are separately paid.'

We may, therefore, define Profit as follows: 'Profit is the difference between the sum actually expended in placing any commodity in the market and the sum it sells for.' This definition confines profit to transactions in which there is a market, or, in other words, to those in which there is an expenditure of both labour and capital; and excludes the income derived from Government stock without any exertion or management on the part of the owner or on his behalf. In this, as in other cases, however, we must acknowledge the existence of a doubtful

margin, and cannot in all cases draw the line between interest pure and simple and income derived from operations in which labour plays a part.

The expression 'Cost of Production' is one that has played a great part and been productive of great confusion in Economics, partly because it has been regarded as something which is fixed and constant, and can be ascertained without reference to supply and demand, whereas the cost of each unit varies with the number of units produced, partly because there is not a perfect agreement as to the items to be included, and partly because the barter theorists attempted to construct an idea of cost apart from money or from value as measured by money. Mr. Macleod's definition has been given above. He regards production as the process of putting a commodity in the market, and defines the cost as the actual expenditure incurred in doing this. The expression has, however, been invariably used to denote the total cost, that is, inclusive of interest, insurance, wages of superintendence, &c., whether these are actually separately disbursed or not ; and it seems advisable, therefore, to adhere to this meaning. If this view is accepted it may be defined as follows :
'The expression "Cost of Production" means

the total cost, inclusive of interest, insurance, wages of superintendence, rent, rates and taxes, &c., incurred in placing a commodity in the market, whether these are separately disbursed or not.'

The following definitions of interest and discount are adapted from those of Mr. Macleod :

' Interest is the price for a loan of money paid at the expiry of the loan.'

' Discount is the price for a loan of money paid at the time of advance.'

CHAPTER XII

SUMMARY

WE have now completed our task of bringing the language and conceptions of Economics into harmony with the facts, and may briefly review the results arrived at.

Economics, as has been so often stated, examines the machinery of society for directing its labour and distributing the fruits thereof. This machinery is controlled throughout by the Law of Supply and Demand. It determines what material things are wealth and what are not wealth, and also how much wealth there is in each of them, or, in other words, what its value is ; it determines what immaterial things are commodities, and fixes their value ; it directs labour into the most productive channels, and it divides the equivalent of the value produced into profit and wages. Rent and interest are only particular cases of its working, and there is no problem of the science which is not dominated by it.

This law is the distinctive feature of the contract type society, and the conceptions to which it gives rise are strictly applicable only to that type. When we deal with the portion of society based on the militant or socialistic type, with public property and the labour of public servants, we have conceptions of a different order, but even here the law has sway, and determines the remuneration of the persons employed.

The law implies buying and selling, and applies to everything which is bought and sold. To this wide conception the name 'commodity' is given. Commodities are of two kinds, those of which the utility is actual, and those of which it is potential. The latter are called property, and this again consists of material property or wealth, and immaterial property.

The object of the whole organisation of industry is final or personal consumption, and such consumption is the ultimate test of the value of all things. It is subject to the law that, after a time, the utility or good derived from equal portions of the commodity grows less and less; and this law is merely a different expression of the Law of Supply and Demand. The utility derived from the first increment is called the initial, and that from the last the final, utility; but the word when

used alone sometimes means also the total utility, or the curve of utility.

Exchange in its simplest form, that is, without credit, distributes commodities for consumption in such a way that the maximum utility is attained which the existing division of property admits of, and it is not until such a distribution has taken place that the idea of value arises. To distribute commodities for production in the most advantageous manner possible, the more potent mechanism of credit, which, however, is also a kind of exchange, is evolved.

When this point is reached we have a market in which prices are the same for all, and, as each person regulates his consumption in every direction so as to get the most he can for his money, the necessary result is that the relative final utilities of the commodities he consumes are proportional to their prices. Hence, as the prices are the same for all, the relative final utility is also the same for all, rich and poor, and is measured by the price.

It is only, however, in the case of divisible commodities that an accurate adjustment is possible; but even in other cases, by hiring, spreading the wear and tear over a longer or shorter period, and choosing a quality suitable to his

means, an individual may closely graduate his consumption of each commodity.

This relative final utility, or, if we extend the idea so as to include cases in which consumption is not immediate, this estimated relative final utility is what is meant by the word 'value'; it is determined by the quantity and utility, or the supply and demand, and it is measured by the price. In this exchange acts the part of a balance, and lets us know not what value is, but how much of it there is in each thing. The possession of this balance enables the economist to measure the motives he deals with, and so gives to his science a precision which is wanting in Jurisprudence and in Psychology generally. It is not that there is any difference in kind, but simply that, when a man spends his income, he is, perforce, compelled to make up his mind as to what things he prefers, and how much he prefers them.

Exchange implies a double transfer with the consent of the parties. What is transferred is the possession, which means in the case of property the power of utilising, and in the case of actual utility, the actual enjoyment. A loan is a sale or exchange in which one party makes over the possession of money, and receives in return the interest in an agreement, which is the commodity we call

credit. This conception of a loan as a sale or exchange we owe to Mr. Macleod, and it throws more light on the mechanism of the money market than anyone would believe possible who had not endeavoured to study it by the older method.

By the operations of buying and selling in a market money is evolved. At first its chief requisites are divisibility and widespread utility. The latter, however, is only to insure general acceptance, and, if this is once secured, it becomes of less importance and gives place to other qualities, such as portability, durability, homogeneity, and stability of value. The commodities which possess these in the highest degree are the precious metals, and these, therefore, emerge from the crowd of competitors, and become the accepted money of the world. To secure recognition of their weight and fineness, they are divided into small ingots or coins, and stamped and marked in such a way that they cannot be tampered with. The portion of the precious metals designed to fulfil the function of a medium of exchange is now highly specialised, insomuch that even a part cannot be extracted for use without the whole losing its character as money. Next, by a process which need not be stated in detail, credit, with bank-notes as material evidence, takes

the place of coins, and acts in precisely the same way save in one respect, that their general acceptance is usually confined to a smaller locality. Lastly, bank credit, without any instrument to attest it, largely supplements the notes, but is not used for the payment of small sums, and, therefore, does not act as a substitute for coins or small notes for this purpose.

Money is used as a measure of value for comparing the values of different things at the same time, and also as a standard of value for comparing them at different times, *e.g.*, when the values of exports and imports of successive years are compared, or when contracts are entered into in terms of money. Most economists declare a standard of value to be impossible, but their meaning is that a perfect standard is impossible, and as there are degrees of imperfection, it is desirable to get a standard as nearly perfect as possible. When it is said that the value is measured by the price, this is strictly true only of values at one time; when values at different times are compared, it is subject to the proviso that the standard is an imperfect one.

A standard of value is to measure increase and decrease of value. The estimated final utility of a thing may alter either from a change in the

thing or from a change in the estimate of it ; but value is more than this, it is the *relative* estimated final utility, and this is affected by every change in the estimated final utility of other things. The manner in which the method of index numbers deals with the problem has been explained in its proper place.

Money in the form of bank credit cannot safely exceed in value a certain ratio to the value of the reserve. This value depends upon the height of prices and the volume of trade, and the reserve may also be directly attacked by the withdrawal of savings for investment. When prices rise and the volume of trade increases, and savings are invested all at the same time, this ratio is reached, and a rise in the rate of discount puts a stop to the process.

It is the hope of profit that leads to the investment of savings, and we have examined the curious fact that profit may be converted into a loss without leading to an immediate reduction in the out-turn, for by reducing it an individual manufacturer would lose more and not less. There are, however, agencies surely, if slowly, at work tending to redress this, and profits then inevitably rise to an undue height, leading to over-investment and subsequent depression. Thus a depression is followed by a reaction, and that again by

a re-reaction, which reproduces, though possibly in a less intense form, the original symptoms.

The term production is applied to all the operations of preparing a commodity for, and placing it in, the market. It includes the production of wealth by manufacture, agriculture, distribution, and appropriation ; the production of actual utility, and the operations of banking, insurance, and the Stock Exchange. The opposed or contrasted notion is personal consumption, which means the utilisation of a commodity for the personal benefit or gratification of the possessor, or of others on his behalf.

Capital is the name given to property employed in production, and consists of vested capital and money capital. The transaction is invariably regarded from the point of view of the owner of the capital, and the sum left to him after all payments are made is the profit.

We may conclude with a summary of the definitions given above :

By **utility** is meant that property in any object whereby it tends to produce benefit, advantage, pleasure, good, or happiness, or to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is concerned.

The **final utility** of a commodity means the

utility of the last increment consumed, whether that increment be large or small.

The **possession** of a commodity means, when the utility is potential, the power, and when the utility is actual, the process, of utilising it ; and a person is said to acquire possession, or to be put in possession, in the first case, when he acquires this power, and in the second, when he actually utilises the commodity.

A commodity is said to be **transferable** when its possession can be conferred indifferently on any one of two or more individuals to the exclusion of another or others.

A commodity is said to be **transferred** to a person when the person acquires possession of it.

Commodity means and includes all transferable things which possess utility, and of which the quantity is limited.

The **utility** of a commodity is said to be **potential** when the power of utilising can be transferred any number of times.

The **utility** of a commodity is said to be **actual** when the transferee merely receives actual benefit, enjoyment, or utility in the present.

Property means and includes all commodities the utility of which is potential.

Wealth means and includes all transferable

material things which possess utility, and of which the quantity is limited.

Labour means any mental or bodily exertion on the part of human beings which gives rise to transferable utility.

Credit means the interest of the payee in an unconditional agreement to pay a sum of money which is fixed or certain in amount.

The term **value** is strictly applicable only to transferable things which possess utility, and of which the quantity, is limited; it denotes their estimated relative final utility; and it is measured by their price or purchasing power.

A **measure of value** is any commodity used for measuring or comparing the values of different commodities at a given time.

A commodity, or a combination or set of commodities, is said to be used as a **standard of value** when it is used for the purpose of comparing the values of commodities at different times.

Exchange is the transfer of one or more commodities in return for another or others.

Supply and demand mean respectively the quantity which would be sold and the quantity which would be bought at a price and at a rate, such as daily, monthly, or yearly, which are either stated or understood.

Money means and includes any class of commodities each of which is generally accepted as a medium of exchange.

Production means and includes the operations of preparing a commodity for, and of placing it in, the market.

A commodity is said to be **consumed** when it is utilised, or made to yield utility.

A commodity is said to be **personally consumed** when it is utilised for the personal benefit or gratification of the possessor or of others on his behalf.

The expression **cost of production** means the total cost, inclusive of interest, insurance, wages of superintendence, rent, rates and taxes, &c., incurred in placing a commodity in the market, whether these are separately disbursed or not.

Capital means property employed in production.

Vested capital means property other than money utilised in production.

Money capital means money employed in production.

Investment of capital means the conversion of money capital into vested capital.

Actual expenditure means the expenditure for carrying on and maintaining a business as distinguished from the original outlay, and it in-

cludes the wages of the manager, rent, insurance, discount and interest only if these are separately paid.

Profit is the difference between the sum actually expended in placing any commodity in the market and the sum it sells for.

Interest is the price for a loan of money paid at the expiry of the loan.

Discount is the price for a loan of money paid at the time of advance.

NOTE A

IF we take only one kind of goods carried by a railway, and represent the number of tons carried by a distance, ON measured along OX , and the freight per mile by the height of a line, PN , perpendicular to OX ,

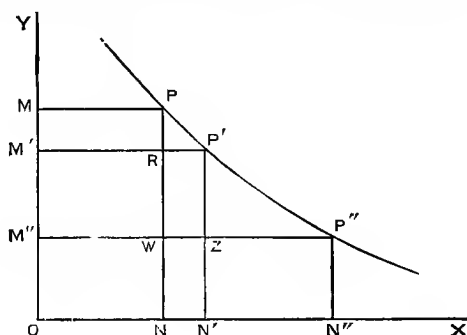


FIG. 3

then we may suppose that as the freight charged diminishes, the quantity carried will increase continuously. The point P will then, as ON increases, trace out a curve, represented in the diagram by $PP'P''$.

Of the expenses of the railway, one portion is the same, whether the traffic be large or small. This includes the interest on the capital sunk in the line, and

a considerable portion of the salaries of the staff. The remaining expenditure varies with the amount of traffic ; but, if the traffic be largely increased, the expense per ton will diminish, although the total expense will increase. We may, however, in the first place, suppose that the charge for working expenses per ton per mile remains the same. Let P'' denote the point at which P is when the freight covers only working expenses, and P' an intermediate point, and draw perpendiculars from these points on the axes, as in the figure.

Then, when the freight is reduced to P' , the gain to the public is represented by the area, $PMM'P'$, and the loss to the railway by the area $PWM''M$ minus the area $P'ZM''M'$, that is, by the area $PRM'M$ minus the area $PZWR$. In other words, the gain to the public is represented by an area greater than $PRM'M$, and the loss to the railway is represented by an area less than that.

Thus, if the freight be reduced till only working expenses are paid, the public gains by every reduction more than the railway loses. At that point the gain to the public over and above what the railway loses is represented by the area PWP'' (if the increased traffic has reduced the working expenses per ton, the net gain will be greater than this). If the freight is reduced below that point, there will be a net loss instead of a net gain. In this connection it is to be remembered that the gain to the ultimate consumer will probably be considerably greater than the immediate gain to the merchants whose goods are carried ; just as in the case of an import tax, the consumer has to pay considerably more than the amount of the tax imposed.

The case is, indeed, identical with that of a reduction of an import tax, and the same diagram and the same reasoning are applicable to both. The only difference is, that in the latter case, when the returns are equal to the cost of collection, the Government can obtain a large additional gain by abolishing the tax altogether.

NOTE B

THIS theory is closely connected with another, that fixed charges do not affect monopoly price, which we shall explain first. If the expenses of production are divided into two parts, according as they do, or do not, vary with the quantity produced, and if x denote this quantity, then the variable expenses may be represented by $\phi(x)$, and the fixed expenses by A . If p be the price at which the article is sold, then the total amount realised by the sale is px , and the amount which the monopolist pockets is this, minus the expenses, or $px - \phi(x) - A$; and his object is to make this as large as possible. But this amount, $px - \phi(x) - A$, will be a maximum when $px - \phi(x)$ is a maximum, whether A be large or small. Thus, if $px - \phi(x)$ is equal to 1,000*l.* when it is a maximum, that means, that if the price be either raised or lowered, it will be less than 1,000*l.*; and, if A is equal to 400*l.*, the monopolist will pocket, at that price, 600*l.*; and if the price be either

raised or lowered, he will pocket less; and the same is true if A be equal to 50*l.* or 950*l.*

The argument may be explained, though less clearly, without the employment of these symbols. If 600 units of a commodity are sold when the price is 6*d.*, while 100 less are sold for every rise of a penny in price, and if we suppose that the variable expenses are 4*d.* for each unit, then we see that the net profit, exclusive of fixed expenses, is 1,200*d.* when the price is at 6*d.*, 1,500*d.* at 7*d.*, 1,600*d.* at 8*d.*, 1,500*d.* at 9*d.*, 1,200*d.* at 10*d.*, 700*d.* at 11*d.*, and nil at one shilling. From this it is clear that it will pay the monopoly holder best to fix the price at 8*d.*, *whether the fixed expenses be large or small.* If his fixed expenses are 1,500*d.*, this is the only price that will yield a profit, while, if they are nil, it is the price that will yield the greatest profit. On the other hand, if the variable expenses were 2*d.* per unit, we should find, by working the question out in the same way, that, whatever the fixed expenses were, it would pay best to sell at 7*d.*¹

When there is competition, the fixed charges are a factor in determining the price; for in general, owing to the increase of population and other causes, the demand for any commodity is continually increasing, and more capital will not be invested in the business unless the sum represented by $p_x - \phi(x) - A$, that is, the profit is as much as would be got by investing the capital in any other way. Competition will force the price down

¹ This theory of the relation of fixed charges to the monopoly price is borrowed from a note written by Mr. (now Sir David) Barbour when Under-Secretary to the Government of India.

to this, but if it is forced down lower, more capital will not be invested until it rises again.

For the sake of simplicity we may suppose that the variable expenses vary exactly as the out-turn, or, in other words, that $\phi(x)$ is equal to θx where θ is a constant. The expression denoting the profit then becomes $x(p - \theta) - A$. Now, as long as p is greater than θ , the manufacturer's gain will be greater the more he sells; if p is equal to θ , it does not matter how much he sells; and if p is less than θ , the more he sells the more he loses. Each manufacturer treats p as, for the time being, constant, or nearly so, and tries to sell all that his fixed capital will produce at that price, consenting, if necessary, to take a slightly lower price, in order to employ his capital fully; but he will not sink more capital.

NOTE C

THE loss to the public as compared with the gain to the monopolist is illustrated by the diagram given below, where $P'P$ represents the curve of price, ON' , ON , the quantities sold, and $P'M'$, and PSM , are perpendiculars to OY . When the price is reduced from P' to P , all those who purchased the quantity ON' get the commodity cheaper, and their gain is represented by $ON' \times P'S$, that is, by the rectangle $P'M$. The lowering of the price, however, gives an additional gain to the

public, which is represented by the space $P' S P$; for if the price were anywhere between P' and P , an additional quantity would be purchased; and the further fall of the price to P gives a benefit to the additional purchasers represented by the difference between the price at which they would have purchased the article, and the price, $P N$, at which they actually did so. On the other hand, the loss to the monopolist is represented by the rectangle $P' M$; but if the larger out-turn reduces the cost of production, his loss will be less than this. When the price is raised, the process is exactly reversed. Thus, if the

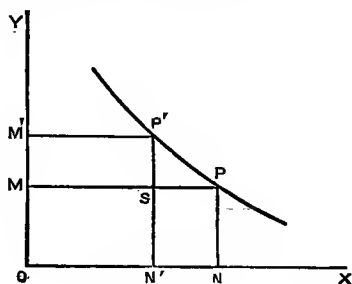


FIG. 4

price be raised from P to P' , the loss to the public will be at least $P' S P$ greater than the gain to the monopolist; and in practice the difference will usually be much greater.

This result may be explained otherwise. A raising of the price by the monopolist occasions a transfer of money to him; but, apart from this, it also reduces the consumption, and it is with this latter effect that we are more immediately concerned. If the price is reduced from one shilling to sixpence, many

persons who would be willing to pay for some of the commodity, or for an additional quantity of the commodity, $11d.$, $10d.$, $9d.$, $8d.$, or $7d.$, will get it for $6d.$, and their gain will be $5d.$, $4d.$, $3d.$, $2d.$, or $1d.$, as the case may be; and, in the opposite case, of the price being raised, this is the amount of the loss.

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PRINTED BY

SPOTTISWOODE AND CO., NEW-STREET SQUARE
LONDON

A CATALOGUE OF WORKS IN GENERAL LITERATURE

PUBLISHED BY

MESSRS. LONGMANS, GREEN, & CO.,

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